THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

THE death of the Rev. J. Leslie Porter, D.D., President of Queen's College, Belfast, removes another of the earliest supporters of this Society, and one of the most distinguished names in Palestine travel. He was born in 1823, and educated at the University of Glasgow first and that of Edinburgh next. In 1849 he went on a mission to Syria, where he remained for five years, taking every opportunity that offered of travelling in the country. On returning to Ireland he was appointed Professor of Biblical Criticism in the Assembly and College, Belfast. He has been since 1879 President of Queen's College, Belfast. Among his works are "Five Years in Damascus," 1855; "A Handbook for Syria," 1858; "The Giant Cities of Bashan," 1865; and many articles in Smith's "Bible Dictionary" and the "Journal of Sacred Literature."

Herr Schick reports some additional discoveries brought to light during the reconstruction of the carriage road north of the city wall, viz., traces of an ancient wall and towers outside and along the present wall (*see* p. 63).

He also describes an important discovery of the foundation of a portion of the ancient city wall, the stones having the Jewish draft and similar to those in the Haram wall, whilst the workmen were clearing the ground in the Latin Patriarch's garden near the north-east corner of the city (*see* plan and sections, p. 65).

Herr Schick continues his report of the cave found last year in the Russian property east of the Church of the Holy Sepulchre; the excavations have been stopped for the time, but will be resumed after Easter (*see* p. 67).

In the present number of the *Quarterly Statement* will also be found an account, with plans and sections, by Herr Schumacher, of the large cave with chambers, cisterns, and tombs, &c., recently discovered under the convent yard of the Sisters of St. Joseph at Nazareth.

Herr Schumacher also describes, with illustrations, some curious remains and antiques that were found at "J'aûni" (near Safed) and at esh-Shejara (on the road between Kefr Kenna and Tiberias).

The Committee have decided to place all their books in the hands of Mr. A. P. Watt, who has been for some years their agent in the "Survey of Western Palestine" and the "Survey of Eastern Palestine." This change, it must be explained, is made solely with a view to the convenience of having everything in the same hands. Subscribers can continue, as heretofore, to take the books from the office. Mr. Watt's address is 2, Paternoster Square.

BALANCE SHEET FOR THE YEAR ENDING 31ST DECEMBER, 1888.

RECEIPTS.	£	s.	d.
January 1, 1888—			
To Balance	215	15	9
December 31, 1888—			
Donations, Subscriptions, and Lectures ..	2,079	13	10
Maps and Memoirs ..	380	2	9
Publications	289	3	11
Photographs	22	1	10
	£2,986	18	1

EXPENDITURE.	£	s.	d.
By Printers and Binders	1,057	1	2
Maps, Illustrations, and Photographs..	408	3	5
Exploration.. ..	283	0	0
Stationery, Advertising, and Sundries	71	12	7½
Postage, Parcels, the *Quarterly Statement*, &c... ..	172	7	0½
Salaries and Wages	260	1	2
Rent..	121	0	0
Paid off Liabilities..	211	3	8
Balance in Bank, 31st December, 1888..	402	9	0
	£2,986	18	1

W. MORRISON,
Treasurer.

TREASURER'S STATEMENT.

The year, though by no means barren of discoveries, has been, from the financial point of view, one of printing and publishing results. Our expenditure

shews a total of £452 on Management, £283 on Exploration, £172 on postage; this very heavy item is due to the sending out of publications, &c., from the office; also the postage of the *Quarterly Statement*, which, last year, was included in the printers' account, is this year taken separately: £211 in payment of Liabilities; £1,465 in printing, illustrating, maps, and binding. Reference to the other side of the Balance Sheet will show, however, that half the expenditure in printing and publishing was recovered by the sale of publications. In other words, out of a total expenditure of £2,584 the proportion is as follows:—

Publishing	·409
Management	·239
Postage	·092
Exploration	·149
Liabilities	·111

As regards liabilities, these consist chiefly of printers' bills which vary from £400 to £600, and are constantly paid off and as constantly beginning again.

There is also a debt of £450 which we hope to discharge before the next balance sheet is issued.

W. Morrison,
Treasurer.

For the convenience of subscribers in following out the position of recent discoveries in Jerusalem, a plan of the city, reduced from the Ordnance Survey Plan of Jerusalem by permission, is published with this *Quarterly Statement.*

This plan gives, marked in red, the discoveries made during the last few years. The same plan will be issued in October or January with all modern discoveries marked upon it.

On 26th February, Major Conder read a paper (the same previously read before the Anthropological Section of the British Association at Bath last autumn), on the "Early Races of Western Asia" at the Anthropological Institute of Great Britain and Ireland. The President, Dr. J. Beddoe, F.R.S., occupied the Chair, and in discussion expressed his assent to Major Conder's view as to the Turanian origin of the Hittites. Mr. C. Bertin was present and also gave his assent to the view that the language of the "Hittite" monuments was best studied by comparison with Akkadian. The paper, with illustrations, will appear in the Journal of the Institute.

The First Volume of the Survey of Eastern Palestine, now in the press under Major Conder's editorship, is expected to be ready by the end of April or a little later. The volume will consist of more than 300 pages, quarto, with some 300 illustrations, including 150 drawings of the rudestone monuments.

The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent.

The Committee announce that they have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer. It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The whole set (*see* below) of the Society's works, including this book, can be obtained by application to Mr. George Armstrong, for 37*s.* 6*d.*, carriage paid. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following:—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine.* How the party began by a flying visit

to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) The Memoirs of Twenty-one Years' Work.—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's Kh. Fahil. The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.

(11) Besant and Palmer's "History of Jerusalem," already described.

The publications for the year 1889, besides those already mentioned, include Schumacher's "Abila" and his "Southern Ajlûn." The former will be ready about the end of April.

Mr. Guy le Strange's work on Palestine according to the Arabic Geographers is completed in manuscript, and will be published in the autumn. Particulars as to contents, price, &c., will appear in the next number.

Mr. Harper's important work on the Illustrations of the Bible obtained from modern researches and observation, is also in the printer's hands, and will be out in the autumn. Its contents, &c., will be duly announced.

Work at Jerusalem and elsewhere will be continued as opportunity may offer. Should the long-hoped for Firman be granted, the survey of Eastern Palestine will be renewed.

Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

The income of the Society, from December 21st to March 20th, inclusive, was—from subscriptions and donations, £550 1*s.* 10*d.*; from all sources, £884 12*s.* 9*d.* The expenditure during the same period was £1,078 9*s.* 10*d.* This amount includes £400 liabilities paid off. On March 23rd, the balance in the Bank was £267 0*s.* 6*d.*

It does not seem generally known that cases for binding the *Quarterly Statement* can be had by subscribers, on application to the office.

Subscribers are begged to note that the following :—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate—

Can be had by application to the office at 1*s.* each.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets the Committee will be very glad to receive any of the following numbers :—

No. II, 1869; No, VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It has come to the knowledge of the Committee that certain book hawkers are representing themselves as agents of the Society. The Committee have to caution subscribers that they have no book hawkers in their employ, and that none of their works are sold by any itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

As many inquiries have been made about transparent slides, a selection will be made from the photographs of the Society for this purpose. Subscribers wishing to have any are requested to communicate with the Assistant Secretary.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are:—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia*, with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

"THE HOLY PLACES OF JERUSALEM."

PROFESSOR HAYTER LEWIS has lately published a book, entitled the "Holy Places of Jerusalem,"[1] which may be looked upon as a very distinct evidence of the value of the labours of the Palestine Exploration Fund. Twenty years ago such a work could not have been produced. It has taken many years of exploration to accumulate the data on which this book is based. When the Palestine Exploration Fund began its operations there was great uncertainty about the topography of the Holy City. The writers on the subject before that time had propounded theories, and as these theories were opposed in many cases to each other, it took time to find out which were reliable, and which were not. Progress was made slowly, bit by bit points have been cleared up, and although much yet remains to be done, some of the principal questions have been cleared up, and have ceased to be subjects of controversy. The very names of buildings and places were found to be wrong—such as the "Mosque of Omar," which we now know was built by Abd-el-Malik. To this another example may be added, which has only lately been cleared up. The large hollow at the north end of the Haram has long passed for the "Pool of Bethesda,"—it is so named even in the Ordnance Survey Map. The real Pool of Bethesda has at last been discovered, and a gain to our knowledge has been made. One merit of the book just produced is, that the author has had reliable material to work with. He has also visited Jerusalem more than once to see with his own eyes the places that had been discovered. Add to all this that he has been able to devote many years to the study of the questions connected with the archæology and architecture of the locality, and being both an architect as well as an archæologist, the result is a volume which has many merits, and it will be read with the greatest interest by all, and more particularly by those who have devoted study to the subject.

The largest portion of the work is devoted to the Dome of the Rock, and the other buildings of the Haram area. In this the author gives the latest historical material which has been derived from the publication of the Palestine Pilgrims Texts, such as Mukaddasi, who belonged to an architectural family, this connection giving his details about the structures of Jerusalem a peculiar value; he wrote about the year 985 A.D. This author mentions the existence at that date of both the Dome of the Rock and the Holy Sepulchre—this conjunction being one of the facts which has gone far to disprove Mr. Fergusson's theory. As that theory is now untenable, it may be well to quote the final conclusion that Professor Hayter Lewis has arrived at. He says: "I am satisfied, after the most careful study which, as an architect, I have been able to give to the subject—First, that the Dome of the Rock was not built by Constantine, nor for several centuries after him, inasmuch as it is built up of fragments of too debased a character to have been used in buildings erected

[1] "The Holy Places of Jerusalem." By T. Hayter Lewis, F.S.A., Emeritus Professor of Architecture, University College. John Murray, October, 1888.

and destroyed before his time. Secondly, that there is nothing to show definitely, in plan, construction, or details, that it is Byzantine, and that there is no reason to suppose that any such building would have been erected on a site which was considered by the Christians to be accursed, or which, if erected before the time of Chosroes, would have survived the destruction wrought by the Jews. As regards the suggestion that it was erected by Eudosia (c. 460), the above observations will apply equally well, except that Sir C. Wilson considers that it does not occupy the site of the Jewish Temple.[1] Thirdly, that there is nothing, either in plan, details, or construction, to disprove the distinct statement made in the famous Cufic inscription, that the Dome of the Rock was built by Abd-el-Melik in 691 A.D. Finally, I must express my full belief that the Dome of the Rock was the work of Arabs, designed for them by a Byzantine or Persian architect, and with Persian or Byzantine workmen, before the Arabs had developed any definite style of their own, and that it was built with the capitals, bases, and columns ready to hand, being derived from the remains of churches and other buildings destroyed by Chosroes and other invaders," pp. 71, 72.

The suggestion that the capitals and other fragments which had been utilized by the builders of the Dome of the Rock are too debased to have been produced before the time of Constantine, is, if I mistake not, a new one, and it is, at the same time, of great force.

Professor Hayter Lewis also deals with the Holy Sepulchre; Jeremiah's Grotto, and the late speculations regarding it as the Site of Calvary; and also with Siloam, and the tunnel which brings water to the Pool from the Umm ed Deraj, or Fountain of the Virgin. The book is very full of beautiful plates, maps, and plans, making every point treated upon clear and distinct.

WILLIAM SIMPSON.

NOTES ON THE PLAN OF JERUSALEM.

The parts shown in red are the more important of the recent discoveries, the descriptions of which will be found in the *Quarterly Statement* as noted below.

A. Scarped rock, &c., showing line of ancient wall to the south of the city. *Quarterly Statement*, 1875, pp. 7, 34, 81, 86.

B. Portion of the (supposed) second wall. *Quarterly Statement*, 1886, p. 21; 1887, pp. 23, 218.

C. Ancient wall near house of Latin Patriarch. *Quarterly Statement*, 1889, p. 65.

D D. Old remains outside the north wall of the city. *Quarterly Statement*, 1889, p. 63.

[1] Sir Charles Wilson suggests that possibly the Dome of the Rock was originally the church of St. Sophia, which was erected by Eudosia in the fifth century. Three documents in the sixth century mention this church, and no document before, or after, alludes to it. Sir Charles thinks that Abd-el-Melik either rebuilt this church or repaired it, making additions at the same time.

E. Ancient paved court near the Church of the Holy Sepulchre. *Quarterly Statement*, 1888, pp. 19, 60.

F. Cave to the east of Church of the Holy Sepulchre. *Quarterly Statement*, 1889, p. 67.

G. Rock-cut tomb north of the Church of the Holy Sepulchre. *Quarterly Statement*, 1887, p. 154.

H. Pool of Bethesda. *Quarterly Statement*, 1888, p. 115, and ruins of a church.

RECENT DISCOVERIES IN JERUSALEM.

I.

Remains of Old Wall outside the present Northern Wall of the City.

(*The Nos. indicate the parts from west to east.*)

In the work of reconstructing the carriage road along the outside of the northern wall of the City, as I reported in my last, some earth near the wall was removed for filling up the road in some places, bringing to light some old remains hitherto unknown (*see* plan of Jerusalem).

D 1. Is an old corner of comparatively large hewn stones; on the earth being removed from it, the corner of another wall more ancient is seen behind it.

2. Is a rock-scarp with a rough face of about 8 feet deep, but as the top of it is still covered up with earth the exact height could not be ascertained; between this scarp and the first mentioned corner there is an edge indicating the continuation of the scarp.

3. South of the last is a large stone, originally forming the angle of the scarp or wall.

4. Is a similar rough-faced scarp partly topped with masonry, its depth is unknown, but it appeared to be higher than 2.

5. Is a large hewn stone *in situ*, in the same line as 3 and 4, and 13 feet from the face of the present wall.

6. The ruins of a tower.

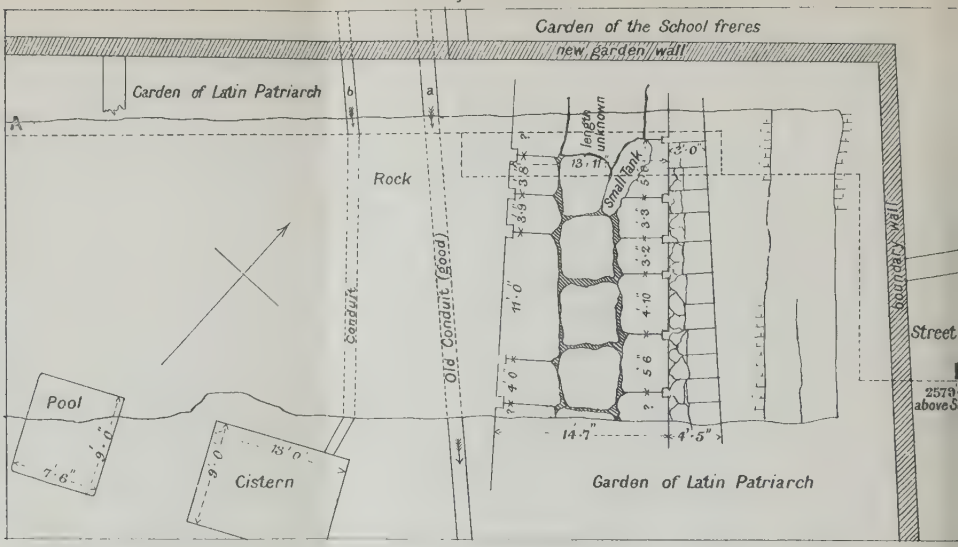
D 7. The ruins of a chamber measuring, inside, 40 feet long by 19 feet wide, with walls of small masonry 3 feet thick. The eastern wall is partially destroyed; the northern has an opening in the middle 3 feet wide, originally a window (?), as the door would probably be in the east wall, as I suggest from the fact that opposite, in the western wall, there is a recess forming a bench or seat 10 feet long. The walls are only to be seen from the top. To decide the position of the door and what the chamber has been, the earth would have to be cleared out of the ruin.

8. Are some remains in line with the corner of the present wall, and looks much older.

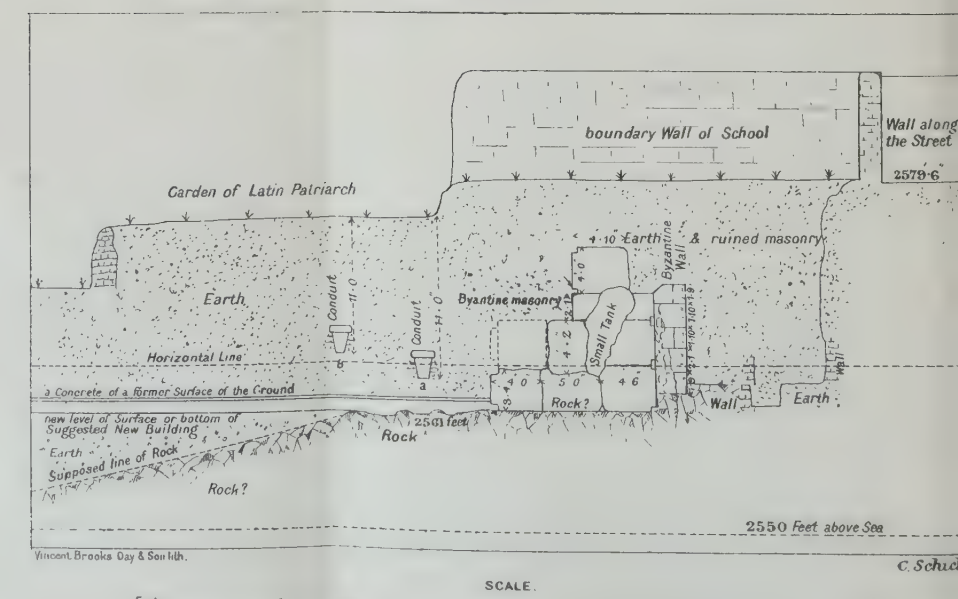
9. Is certainly more ancient than 10.

11. The stones in this corner are not jointed.

PLAN OF OLD WALL.
Recently discovered.



SECTION A.B.



II.

Remains of Old Wall near the North-east Corner of the City.

In removing the earth off a space of ground 100 feet long by 100 feet wide and 16 feet deep, in the garden of the Latin Patriarch of Jerusalem, preparatory to enlarging the palace and making other improvements, the workmen found a portion of an old wall (*see* plan of Jerusalem, C), very probably a remnant of the ancient city wall. I had full liberty to examine and measure everything minutely (*see* plan of old wall and section).

The remains are of a wall, on an average 14 feet thick, of large Jewish stones, and laid bare for a length of 26 feet. The stones are, on an average, 4 feet high, like those at the "Haram" wall, and have also the same draft. The stones on both sides of the wall are drafted. On the western—once the outer face—I counted (besides those which are at both ends, and of which I could not take their measurements) four stones, one 4 feet long, the next 11 feet, and the two others 3 feet 9 inches and 3 feet 8 inches, and above 4 feet wide, and nearly the same height. On the east side I counted five stones of the same description, one 5 feet 6 inches, the next 4 feet 10 inches, then two nearly equal, 3 feet 2 inches and 3 feet 3 inches, and the next 5 feet, also nearly 4 feet broad and high.

Between these two rows of stones there are four larger filling stones, not properly cut, simply dressed roughly to a square form, of the same height as the others; they are, on an average, nearly 5 feet broad and 5 feet 6 inches long. Over this layer was a second one, but not so complete; on the western side of the wall several stones were missing, but their size could still be ascertained. They were higher than the first, viz., 4 feet 6 inches—in breadth and more, but the filling stones narrower (*see* section) towards the northern end; a small pool or cistern had been made by widening the joints (which were comparatively wide in the middle of the wall and without any mortar), as shown in the drawings.

On the top of the two courses at the northern end is a very smooth stone of the Byzantine period, measuring 2 feet 1 inch in height, over this is placed a drafted stone both off which pieces were broken to form the cistern or tank.

The overseer of the work told me that they found a similar stone, near to the last-mentioned one, but lying on the earth.

The faces of these large stones are not smooth hewn, but in some degree rough. The bearing of this old wall is 41° N.W. It is curious that the thickness is not all alike—in north something narrower than in south. But what is more curious is an attached wall of quite a different kind, of very smooth hewn stone, on an average of about 2 feet high and a little more long. I counted five layers; between these and the old large stones is a filling with rubble and black mortar. But the top stone has a slanting bevel towards the old wall (*see* section). There is

even more difference in the thickness of this wall than in the old one—at the north end it is 3 feet thick ; at the south end, 4 feet 5 inches. The reason of this cannot yet be explained or understood. It looks exceedingly strange that to a wall of very large stones and 14 feet thick, another wall of smaller stones was put alongside of it, and leaving thus, as the slanting bevel proves, the old wall without. How far northwards this old wall extends I cannot tell, nor is there any hope of finding out now, as the excavations will not be carried on northwards, but probably southwards. Whatever will be found there I will report upon in due time. They think a corner of the old wall will be found. These old remains are certainly in connection with those Dr. Robinson first reported upon (and spoken of in Sir C. Wilson's Notes, page 73), which were broken in pieces, and removed when the school brethren erected their large building —those running exactly due north, and, as it was found out afterwards, forming a right angle. The distance between the two is about 65 feet only. For the situation of the newly discovered wall, *see* plan of Jerusalem (C).

These old remains have been removed, and the large blocks broken up for building stones.

It is remarkable that west of these old remains, for a distance of 64 feet, no old masonry was found, simply earth, and into it built comparatively modern tanks, &c. East of it and everywhere are hewn stones or walls of former buildings, and it would seem that the rock was then partly removed, as on the west side the rock is in its old condition, and following down in a decline 12 or 13 feet in 100 (*see* section).

West of the old wall, 6 feet 8 inches distant, a water conduit was found, the continuation of which was also found by the school brethren west of their new building inside the city, near the northern present town wall, and was also found at several places outside ; most probably it once brought the water from the north-western high ridge into the town and into the pool formed, when the Latin Patriarch built his palace about twenty-five years ago, which was about 50 feet long and 30 feet wide, and about 20 deep. Close to it is another one, but of smaller dimensions, as I am told, for I have not seen it. This conduit is well built —measuring on the bottom 1 foot 2 inches wide, on the top 1 foot 5 inches, and 2 feet high, and covered with flagging stones. Six feet distant from it westwards another one was found, but of lesser importance and inferior work, situated a few feet higher. Its bottom is 11 feet under the surface of the garden, whereas the former is 14 feet. It is recognisable by a hard concrete, lying horizontal over the whole place, as far as it is excavated, towards the west and south. This concrete stops at the old wall on the rock (*see* section), 2,561 feet above the sea.

There were also found two cisterns, one 9 feet long by 7½ wide, and without a roof, the other larger, 9 feet wide by 13 feet long, still in good preservation but full of earth, into which the conduit *b* brought the water. Both cisterns are of no interest, were built simply in the *débris*, and will now be destroyed.

III.

Notes on the Plans and the Cave East of the Church of The Holy Sepulchre.

I reported previously that I wished some excavations should be made on the Russian property, east of the Church of the Holy Sepulchre (*see* plan of Jerusalem); this was not done at the time, when the work of the "Cisterns," a new building, was going on. However, in the beginning of May (1888), there came an order from St. Petersburg to the leaders of this work, that they should make the excavations where I desired. So I pointed out three places desirable where they should excavate. The first was to make a shaft at "B" (*see* plan), and dig down till they found the rock, which was done; but as I left Jerusalem on the last of May, for a journey to Europe, I gave full instructions to one of my men to always note everything that was found, and take all necessary measurements. A few days after I had left they struck the rock, a piece of which was broken off to show it to me. It proved to be the usual Jerusalem "Meleki" rock. The shaft went down through earth and *débris*, and near the rock a sediment of fine earth was found. The rock was found to be 47 feet 6 inches below the surface of the present street, or at a height of 2,326 feet above the sea. My orders were: that when the rock was found, the shaft should be filled up to about the half height, and then strike a gallery eastward. They did so, but 6 feet higher than the middle, and a little below the rock appearing there; the rock is a ledge of about 4 feet thick (*see* Nos. 12 and 11). Under it there was a wall 9 feet 10 inches thick, which they had to break through; it consisted of rough boulders, large and small, without any proper facing, and without a solid foundation, resting simply on *débris*, the piece of wall above the rock had hewn stones, and on the west side of the shaft at B B there were five nicely dressed stones, but only six layers resting on *débris*.

I told the overseers of the Russians, and the architect, that when they went eastward they would find some "cavity," which they did, but full of earth; however, they cleared a gallery for 12 feet eastward, having the rock as a roofing, slanting downwards towards the east, exactly as the roofing in the Cotton Grotto east of the Damascus Gate, opposite Jeremiah's Grotto. For about 12 feet further east, an iron rod could be put between the rock roofing and the earth; fearing that going on further with the work would involve too much expense, they left the clearings, and so the work stands. So I thought it best to report on it now. As the rock is known on four places (*see* the drawings), and everything looks like the large cave or Cotton Grotto already mentioned, one comes to the conclusion that this was also a large cave. In the street above, the rock is very near the surface, in some parts cropping out. I have shown in dotted lines the supposed extent of the cave towards the east. There may be, possibly, a door or outlet in its eastern end. Sufficient excavation has not been made to indicate the size of the cave, but it appears to extend more in the north and south than in the east and west.

I suggested another point (K) for digging a shaft to find out the edge of the rock, and how far the cave extended in that direction.

The third point for excavation would be at C C in No. 11, and find out the continuation of the blocked-up conduit Cx, in No. 11 and No. 12, which I suppose is hewn through the rock. In No. 12 section I have shown in dotted lines what I presume to be the form of the cave in the eastern and western parts. When excavations are resumed at points K and C, &c., I will continue this report.[1]

CONRAD SCHICK.

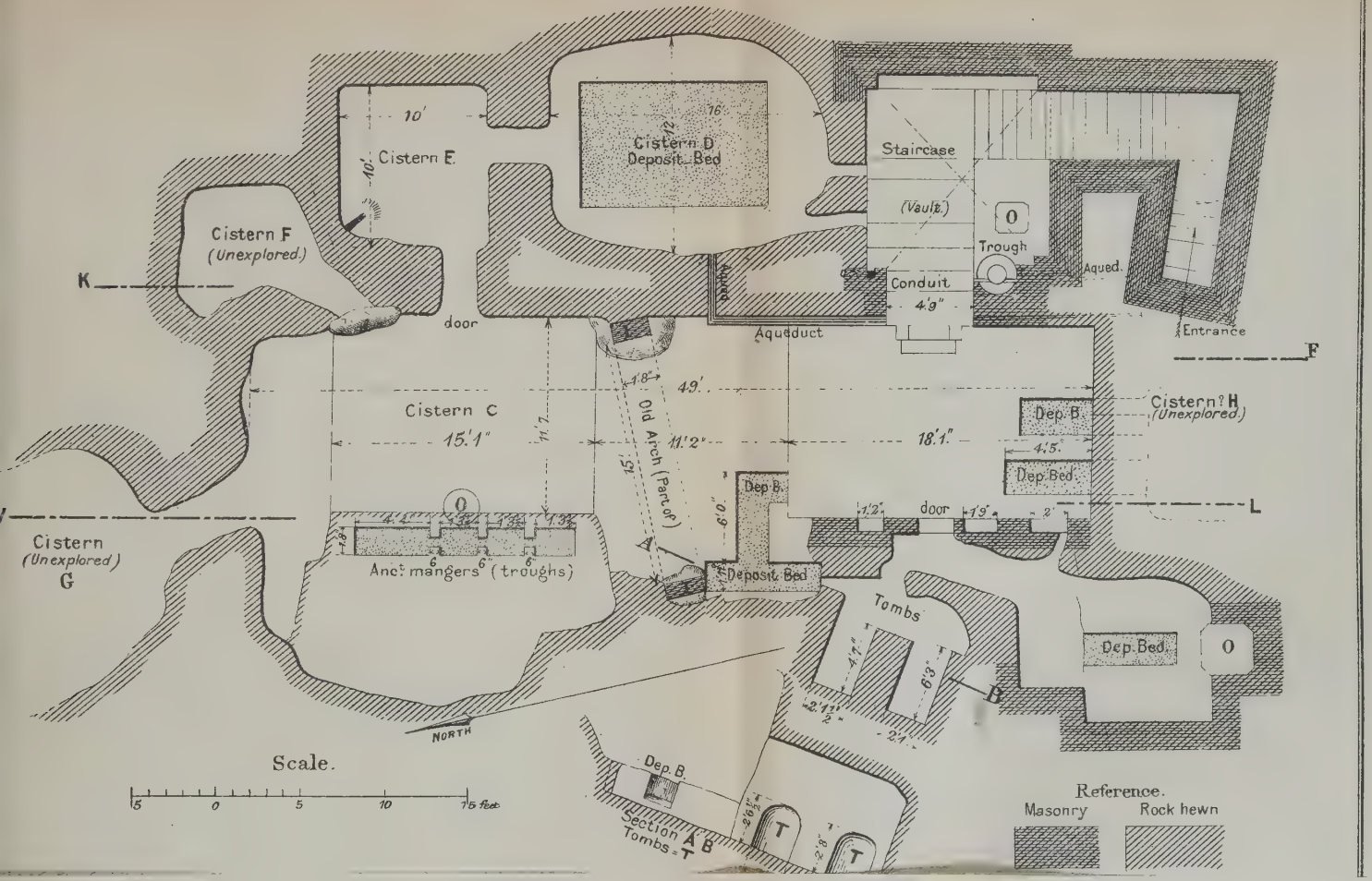
RECENT DISCOVERIES IN GALILEE.

Nazareth.—Discovery of Large Cave.—At Nazareth, very few ancient remains are found, excepting the "sanctuaries" shown in the convents and in the vicinity of Nazareth, the explorer has few other proofs but those guided by faith and tradition, which are not always reliable ; it is, therefore, welcomed if a discovery as the following is made.

In the convent yard of the "Sœurs de S. Joseph," at Nazareth, a cistern was to be dug, and in the course of the work an ancient cave was discovered, choked up with rubbish and mud which had to be removed at great expense, until the character of the subterranean room was seen. Signs of a well, the dampness of the interior, and the soft humid rocks, from which, even in summer, water was dropping, seemed to suggest the vicinity of a spring, which, according to local tradition, once flowed on the north of the "*beidar*," or threshing-floor of the city, which lies a couple of hundred yards south of the convent and the cave mentioned, and is said to have been in connection with *'Ain Miriam*, the spring on the north of the city which supplies Nazareth with drinking water. The discovery of a fresh spring would be a matter of great importance at Nazareth, as it suffers from the want of water very much during the two hot months of summer. I was, therefore, asked by some priests and the abbess of the convent to examine the interior of the cave, and find out whether any spring was probable or not. I found the mud and rubbish only partly removed, while signs of large rooms adjoining were visible, and consequently recommended the continuation of the excavations. This advice was followed, and in October last I again examined the place, planned the caves, and now give the following account of it (see plan and sections) :—

From the paved convent yard we step down the new-masoned stairs into the actual staircase, the floor of which we reach at a depth of about 20 feet below the surface. The staircase is vaulted, measuring 11 feet each side. The cross vault is carefully built with large soft limestones

[1] When the cave has been thoroughly explored the plans and sections will be published, at present they are in an incomplete state.


Cistern E.
10'
10'
Cistern F
(Unexplored.)
K
Cistern D
Deposit Bed
16'
12'
Staircase
(Vault)
O
Trough
Conduit
4'9"
Aqued.
Entrance
F
door
Aqueduct
Cistern C
15'1"
11'7
1'8"
4'9'
Old Arch (Partof)
11'2"
18'1."
Cistern? H
(Unexplored)
Dep. B.
4'5.
Dep. Bed
Dep. B.
6'0"
1'2"
door
1'9"
2'
L
Cistern
(Unexplored)
G
Anc.t mangers (troughs)
Deposit Bed
Tombs
4'1"
6'3"
B
Dep. Bed
O
2'1"
2'1"
NORTH
Scale.
5 0 5 10 15 feet
Dep. B
2'6"
Section A B
Tombs
T
T
2'3"
Reference.
Masonry
Rock hewn

(*Nâri*), and well preserved ; the top of the vault shows conical fittings ;

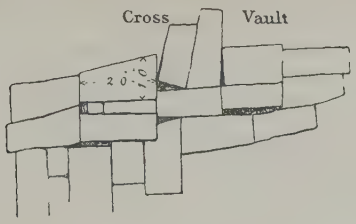


Fig. 1.

the joints are wide, and although once filled with mortar, are now open ; at the side of the last six steps is a masoned pit (O plan) about 2 feet 6 inches wide, leading from the surface through the vault ; at the end of the stairs near the floor a circular trough is placed on a bench of the bare rock, into which a small aqueduct (*see* plan and section) is led. Thus arrived on the floor we find that the room described is cut out of a soft white limestone rock, which was masoned on every side except the northern, near Cistern D. We step further through a sort of door, the upper part of which, 4 feet 9 inches wide, is cut out of the rock in a round shape, and two steps down arrive at the main room of the subterranean cave, the floor of which is about 30 feet below the surface. This room is rectangular, from 10 to 13 feet high, hewn out of the same soft rock, and is divided into three parts by terraces, the southern of which lies lowest, and the northern highest ; in the northern (cistern C of plan) we find on the western wall four rock-cut troughs, at a height of 3 feet 5 inches above the floor, the largest and deepest of which is 4 feet 4 inches long, 1 foot 8 inches wide, and 1 foot deep, or little more, all connected by small channels, to lead the water from the upper small one down to the lowest, the bottom of each being lower than its upper neighbour ; their width, 1 foot 8 inches, is the same. I consider these to be either water-troughs or mangers, as they are similar to those so frequently found in the Haurân subterranean stables and rooms ; Mdme. the Abbess believes they were troughs used by the ancient Jews for "purifications." Just above them (O plan and section) is a round mouth, 3 feet in diameter, used to draw water from the cistern, the upper part of which, while running through rubbish and earth for 9 feet 6 inches height, is masoned up with hewn stones, while the lower part through rock and clay is bare ; arriving at a depth of 19 feet, this pit opens in the form of a funnel to a cistern (C, section L M) irregular in shape ; the floor of cistern C is 15 feet 1 inch long, and 11 feet 7 inches wide ; from here we go down one step, about a foot high, to the central part, which in its eastern wall shows the first three stones of an arch of an original width of 15 feet, and in the opposite western rock wall one stone (I of map) belonging to the same arch probably ; in the floor of this apartment we see three connected rock-cut basins, the principal one of which is a little over 6 feet 3 inches

long, and 1 foot 11 inches wide, and about 2 feet deep. I hold that these basins, in the way they are placed and connected (*see* plan), are deposit beds (*i.e.*, for beds into which the mud deposits settle, as often seen in this country, but the opinion that they were graves could hardly be admitted. These basins are connected with the southern part above mentioned, into which the stairs lead from the exterior. In this room, also, which is separated from the central one by a terrace 9 inches high, we find near the southern wall on the floor two separate basins, the largest of which is 4 feet 5 inches long, 2 feet wide and deep : the fact that they also lie, as the above in the lowest part of the floor, and that they are connected with an unopened apartment (cistern (?) H of plan) convinces me that they were also deposit beds of the cisterns. The walls of these cisterns or rooms described are bare, but there are signs of an original plastering in different parts, and among the rubbish and mud drawn to daylight, piles of a good thick mortar-cover are found, as well as pottery ware ; only the western wall of this southern apartment shows a piece of masoned wall built on the soft clay rock (*see* section LM of plan), evidently a partition wall with three rectangular niches, and a fourth opening which is connected with an adjoining room to the west. This masonry must be of the same period as the vault described ; the stones are also *Nâri*, large and not very carefully worked and fitted. Below this wall is an opening, a door cut through the soft rock, through which we enter by a narrow passage into a room of irregular shape, with a basin or deposit bed in the centre, above which a mouth (O of plan) opens towards the surface. This mouth, as well as the walls of the room, were built up by the convent while excavating, the rock then being in a dangerous, crumbling condition. We return a few steps back through the narrow passage, then turn left hand and crawl through a low door into a low room of irregular shape, which contains the most important remains of this cave, namely, two tombs, or Kokim, of nearly same size. The bearing of these Kokim is 54° N.W. ; the southern one is on one side 6 feet 3 inches long, 2 feet 1 inch wide, and 2 feet 8 inches high (*see* section AB on plan), the other, merely separated by a rock partition wall, may have had the same length, but is now only 4 feet 7 inches long on one side, 2 feet wide, and 2 feet 6½ inches high ; both have rounded ceilings, and are rock-hewn, the rock here being more compact. I consider these tombs, to which a *stone door* of *Nâri* was found lying near, of common form, 3 feet 6 inches long, 2 feet 5 inches wide, and 7 inches thick, to be the few original remains of this cave ; unfortunately we found no ornament or sign whatever, either on the Kokim nor on the stone door. The bearing of the central large room of the cave is 11° N.E.

In the east of the cave (cistern C) is an irregular door, through which we find a cistern (E of plan) of rectangular shape, 10 by 10 feet, rock-hewn, the upper part of which is covered by a round vault somehow different from the cross vault of the staircase, showing a projecting stone (Fig. 2) in the western part with the object of leading rain-water from the surface into the cistern. From here we proceed through

an opening to a large adjoining cistern (D of plan); this cistern measures 16 by 12 feet, is of an oval shape, and has a central deposit bed (*see* section KF of plan); it is connected with the staircase by two openings near its ceiling, and from the unexplored cistern, H, a small aqueduct leads to it, which is interrupted by the door leading to the stairs of entrance (*see* plan). This small aqueduct evidently was built before the staircase was used as such, and had the object to supply cistern D with the surplus of cistern H. The aqueduct is composed of large channeled stones placed on the clay rock, and measures 4 by 6 inches in width. To the north of cistern E another cistern (F of plan) was discovered, but not cleared out yet, also to the north of cistern C a narrow sloping passage leads to a wide room (unexplored cistern G of plan), which yet awaits clearing.

In the yard itself, above the cave described, but evidently in no direct connection with it, the "Sœurs" found three pillars free of common masonry; they are composed of large *Nâri* stone, and to judge from their form and shape, seem to have formed arches; they are situate above the ancient arch of the central room (11 feet 9 inches south of mouth O of cistern C lies the first pillar). The excavations must be continued on the surface, before satisfactory results are obtained.

Among the *débris* found in the cave was a handsome little marble column 3 feet 3 inches long, 5 inches in diameter (Fig. 3), with no base

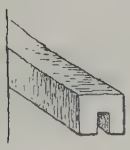


Fig. 2.

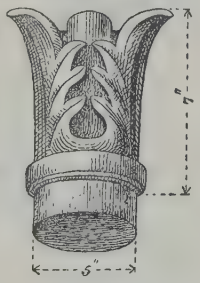


Fig. 3.

but a capital worked to it 7 inches high, which, although defaced, shows careful carved work; another marble column 8 inches in diameter, a pedestal cornice of 'Ajlûn marble, having the following shape (Fig. 4):

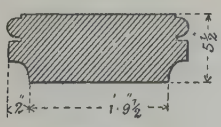


Fig. 4.

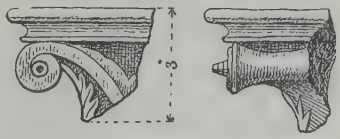


Fig. 5.

Large granite columns were also excavated in lengths of 4 and 5 feet, and an upper diameter of 1 foot 7 inches. A fragment of a beautiful little Ionic capital found shows parts plated with goldleaf (Fig. 5);

also a small statuette 6½ inches high (Fig. 6), of which unfortunately the head and legs are broken, made of a soft limestone, was once plated with gold. This most pretty little work, although much defaced by the lamp, shows a rich folded and ornamented dress, the arms holding something like a bunch of flowers, besides a mass of glass balls, generally broken to pieces; the "Sours" gathered bowls of minute glass, the pieces varying about an eighth of an inch square, representing every possible colour, and some being nicely gold-plated; also large pieces of dark glass up to ½ of an inch thick, many glass beads, pearls of different colour and size, and any amount of fragments of pottery ware from jars, pots and plates, some painted with simple black stripes, others red and brown, and a nice collection of well preserved lamps of pottery ware (see Fig. 7). None of these lamps

Fig. 6.

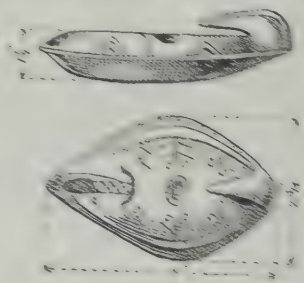


Fig. 7.

showed any inscription—or letters, merely antique ornamentations, as seen from the annexed sketches. I also found among the remains an instrument made of bone, of the following shape and ornamentation, probably used for weaving (Fig. 8):—

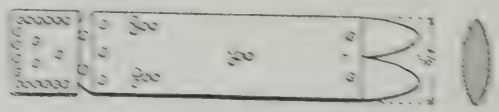


Fig. 8.

Among the coins found I recognised some Arabian, which bore the inscription, الامام المنصور and لله ثم العزيز. Some other Roman coins of common appearance; of still greater interest were some Jewish coins, or at least some pieces having old Hebrew characters, much defaced, but worth a special study.

The ground and ruins where the above-described cave is located is called the *Khan Abd es Samed* by the natives. The Natzerenes, as well as the "Sours," stated to me that a mosque stood there at a late period. Old men pretended to know that, according to tradition, the *Khan* was

built on and rebuilt out of the stones of an ancient church which stood on the same place.

This is what I gathered on the spot.

The caves were visited during last summer by competent historians; among others, by M. V. Guérin himself, whom I had not the pleasure of speaking to, but who, according to what was stated to me by Mdme. —, is of the opinion that this cave represents the edifice mentioned by l'Abbess Arculphus, of the seventh century (according to Adamnanus[1]), and the description of which Guérin quotes in his work, "Description de la Palestine," Paris, 1880, Galilee, vol. i, p. 99, as follows:—

"Circa Nazareth, et Arculfus, qui in ea hospitatus est, narrat, et ipse et Caphamarum murorum ambitum non habet, supra montem posita; grandia tamen lapidea habet ædificia, fidemque duo prægrandes habentur constructæ ecclesiæ, una in medio civitatis loco super duos fundata cameros, ubi quondam illa fuerat ædificata domus, in qua noster nutritus est salvator. Hæc itaque eadem ecclesia duabus, ut superius dictum est, tumulis et interpositis arcubus suffulta habet inferius inter eosdem tumulos lapideumque fontem collocatum, quem totus civium frequentat populus, de illo exhaurientes aquam, et de latice eodem sursum in ecclesiam superædificatam aqua in vasculis per trochleas allegatur. Altera vero ecclesia in ea fabricata habetur loco ubi illa fuerat domus constructa, in qua Gabriel archangelus ad beatam Mariam ingressus fidem eadem hora solam est locutus."

Comparing the above description of the church standing on the place of tradition, where Jesus passed His early youth, with my account given, we find that there may be a possibility of identity if we admit that a second arch, besides the one of which remains still are found, has existed, on which the church was built, and if the expression "tumulos" can be identified with the two rock-cut tombs or Kozim above described, a comparison which is not adopted by all explorers of the place. However this may be, there is this much to state that the subterranean cave before us had at least two periods of use; the first and ancient period is represented by the two Kozim, which, considering the coins found, may have an ancient Jewish origin, and the cave represented a subterranean burial-place, like many others found throughout Palestine; a second period may have changed and widened the sepulchral cave into a large cistern, or group of cisterns, with a large central room, to which the women descended by the stairs shown, to fill the jars as they now do at the present day; the cisterns lying aside of this room were kept as reservoirs for time of want. This period, with the masonry work remaining, excepting the arch (1), may have had its beginning in the middle ages.

To have an idea of the plan represented by the four pillars found above the cave, excavation work must be done westwards, that is, on the place where the Jâma' Abd es samad actually stood; here, doubtless, interesting results would be obtained, and it is very desirable that the

[1] Adamnanus, "De Locis Sanctis," cxi, § 26.

Sœurs de S. Joseph at Nazareth should continue the excavation work at this interesting locality.

Jâ'uni.—At the Jewish colony Rushpina, near Jâ'uni, at one hour's ride eastward from Safed, I lately came across an old ruined Jâma', also known by the name "*Beit el 'Arab,*" بيت العرب "the house of the Bedawin," which, from its plan, must have been something like an ancient bath (Fig. 9).

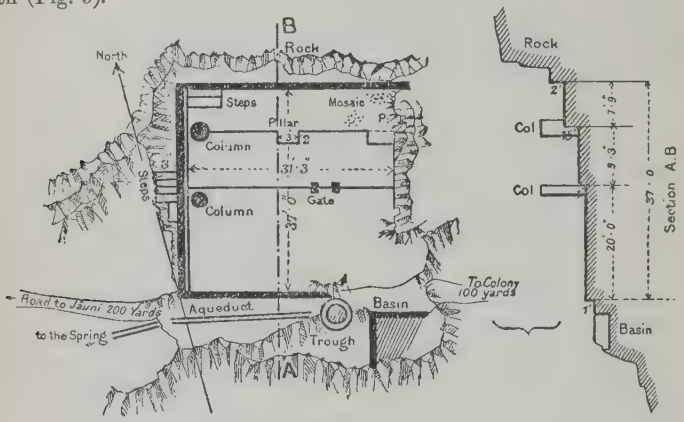


Fig. 9.

Coming from the colony we enter a flat, rectangular space, evidently hewn out of the solid rock, measuring 37 by 31 feet, with steps in terraces, the first of which is 1 foot high and 20 feet broad, the second 9 feet 3 inches wide and 1 foot high, the third 15 inches high and 7 feet 9 inches broad. This latter terrace has three pillars, on one of which a column still stands (Fig. 10); the floor was paved with mosaic, regular

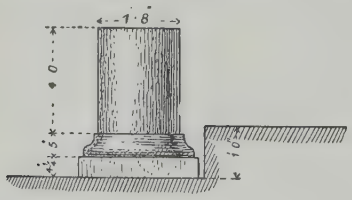


Fig. 10.

Fig. 11.

square pieces of hard limestone placed in good mortar, together $\frac{1}{2}$ inch thick. The mosaic stones had different colours—black, white, and grey. Behind this third terrace there is a wall, formed by the bare limestone rock, about 5 feet high, which also continues round the western side. From the north and west, where the rock overhangs the ruin, rock-hewn steps lead to the interior. On the second terrace a column still stands, 1 foot 8 inches in diameter, and 5 feet in height, with base, and remains of a gate or door are visible.

At the lowest point and southern end of the building we find a large stone trough 4 feet in diameter, and near by it a small ruined aqueduct leading in a south-western direction to the spring of the village; on the other side of the trough there are ruins of a cistern. The road from the village to the colony leads along its southern side.

As before said, the ruin with the aqueduct, as well as the plan of the interior, speaks in favour of a bath ; in this case, the lowest terrace must have been the bathing basin, the second one the room for clothing, and the third one, with mosaic, the room for rest, with a door to the exterior in the north-west corner.

Nearer and towards the colony Rushpina I came across an old cemetery ; among the scattered stones once forming the graves lie parts of a hugh column of hard limestone, measuring 3 feet 2 inches in diameter. The different parts were fastened together by pins, same as seen at *Tabakât Fahil* (" Pella," p. 26) (Fig. 11) ; the pin-holes had the form of a cross, 1 foot long, 1 foot 2 inches broad, and 3 inches deep ; another pin-hole was circular and 4 inches deep. The ground being flattened, although lying on a slope, and having a commanding position over the plain down to the Lake of Merom (*Hûleh*) and vicinity, the columns may have belonged to a temple. The Jewish colony, founded by the generous Baron Ed. de Rothschild with the name of Rushpina, is flourishing. Gardens, vineyards, and about thirty-five buildings, partly with gable roofs, decorate the rocky slopes around *Jâ'uni*.

Esh-Shejara.—While laying out roads I came across a flat rock (Fig. 12), situate on a slope of the vicinity of the village *Esh-Shejara* (between *Lûbieh* and *Tabor*, on the road from *Kefr Kenna* to *Tiberias*), which has the following shape :—

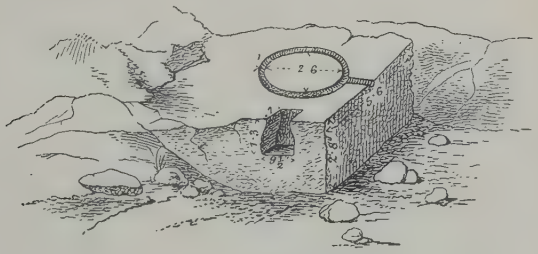


Fig. 12.

It measured about 5 feet 6 inches square, with a height of 2 feet 8 inches, but was evidently higher originally, the fellahîn excavating around the rock, seeking for a *Kenz* (treasure), and thus laid it bare, but covered a part of it up again. The flat surface of the rock has a circular ring 2 feet 6 inches in diameter, forming a groove only 1 inch wide, and about ½ inch deep, with a straight groove of about the same width, leading from the ring to the edge of the rock. On the western vertical side of the rock I found a notch, cup-formed, 9

inches wide below, 6½ inches on the top, 1 foot 3 inches high, and 7 inches deep (*see* sketch). The rock is hard limestone. The level surface was not worked, but seems natural; the sides were evidently shapened with a tool, although no mark or sign is discernible. An old fellah Sheikh, who accompanied me, named this rock *El-Môkadi* المواقدى (probably from قَدَّ "to slice into pieces"), which expression was repeated to me later by others. The people seem to have a hazy superstition as regards this rock, the history of which I hope to gather later. Was it an altar or a press? Further up the hill towards *Lûbieh*, and from here north-westwards down its slope, I found a number of unique coniform cuttings in the surface of the flat rocks, one to one foot and a half deep

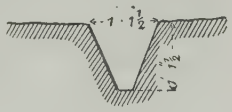


Fig. 13.

and wide, and also less, some only a foot wide and half a foot deep; they are situate at considerable distances from any cistern or well, and spread all over the rocky slopes.

Between the villages *Esh-Shejara* and *Kefr Sabt*, near the *Sultâni* (high) road, leading from the *Sûk el Khân* to Tiberias (*see* Palestine Exploration Fund Map), I found a circle formed by huge, unhewn stones, with a diameter of 50 feet. The stones have a height from 2½ to 3½ feet. This ruin is calle *Rujm el Harâik*, رُجم الحرايق "the mound of the burnings," and is doubtless of great age. The vicinity is called *Daher es-Salîb*, ظهر الصليب "the slope of the cross," as according to the fellahîn, a cross was chiselled on one of the large blocks mentioned, but which I could not discover.

Walking from the village *Esh-Shejara* towards *Khirbet Kaisharûn* (*see* Palestine Exploration Fund Map), I found on the slopes passed, near this ruin, some caves, which were quite recently discovered and opened by shepherds. Their interior, which I explored, has a distinct sepulchral character, *i.e.*, rooms from 10 to 15 feet square, with Kokim and loculi worked into the vertical walls, some of which yet contain human bones, but the limestone rock is so soft and crumbling, the interior to such a degree fallen and full of dust and stones, that a plan could not be made. I can merely state that the plan would be very nearly the same as that of the grand cave at *Sheikh Abreik* (on the road from Haifa to Nazareth), smaller of course, but having a number of rooms connected by narrow low passages, only to be entered in a crawling position. Curious enough, the cave, or rather caves, for several were found which may have a connection with each other, have not an entrance from the front, as others, in the

face of the rock, but seem to have been reached by a passage (Fig. 14)

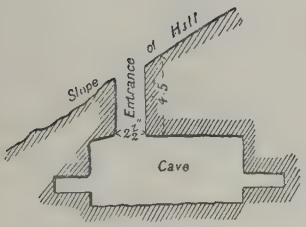


Fig. 14.

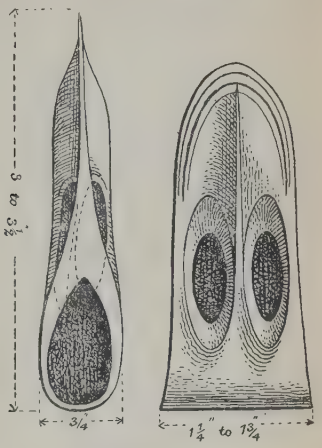


Fig. 15.

through the ceiling, about 2 to 2½ feet wide, as several were found leading into the same cave, but probably among the brushwood of the slopes the general entrance will yet be found.

While crawling about in the interior my companions found two similar copper instruments of the following shape (Fig. 15) :—Each one is from 3 to 3½ inches long, 1¼ to 1¾ inches broad, and ¾ inch thick ; its shape is that of a short spear or hatchet, with a rib on its broad (flat) side separating two oval holes which stand in connection with the ear of the instrument, to fasten its handle in. The flat end, the edge of the instrument, bears some parallel ornamental lines. Perhaps these instruments—for they could hardly be anything else—were given the dead into the grave as one of the favourite weapons. Also a thin bracelet of copper, ⅛ inch thick, much defaced, was found, having at its end something like a snake-head (Fig. 16).

Finally they brought me a copper coin, found among the dust in a grave, which I reproduce in its natural size and stamp (Fig. 17) :—

Fig. 16.

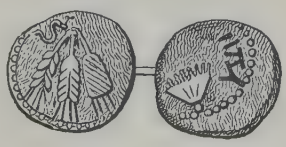


Fig. 17.

On one side there are three ears, tied together with a sling, surrounded by a ring of pearls ; the other side shows a sort of purse with tassels and some letters, which I am unable to decipher.

Modern *Esh-Shejara* is only about fifty years old, but it is built on a ruined site with the name— according to information collected on the spot —of *Deir Hânîn* دير حانين to which also the ruined mosque and church near the spring and village (*see* "Memoirs of the Fund," vol. I) belonged. According to tradition, *Deir Hânîn* was a very important market place, it being situate on the crossing of the two high roads— Damascus to Jerusalem, and 'Acca to Haurân. Both roads are still frequented, but the market was transferred to *Sûk el Khân*, a Karavanserai of old style near the foot of Mount Tabor; even that market was done away with some years since, the people becoming more settled; their wants are supplied from the cities of Nazareth and Tiberias.

G. Schumacher.

Haifa, December, 1888.

THE "*VIA MARIS*"

A Reply.

In the July number (1888) of the *Quarterly Statement*, the Rev. Ch. Druitt wishes to have explained "the ground for my identification of the Via Maris of antiquity with the caravan road which bisects Upper Jaulân in the direction of 'Acca and Haifa."

I have to state that I followed the opinion of Ritter, who, in his description of the upper and central Jordan di-tricts ("Erdkunde," xv, a, "Palastina und Syrien" II, a, pp. 269-272) states that the central of the three large (northern, central, and southern) caravan roads which connected Damascus with the lands of the Kanaanites, passed by the fortified Jisr and Khân Benât Y'akûb, and, coming from Damascus or the Euphrates Valley, and crossing the Jordan at this bridge, took a southern course to the Sea of Galilee, to the important custom house Capernaum, and from here to the Mediterranean Sea. Its name, Via Maris or "Road to the Sea," "Sea-Road," may have therefore been derived either from the Sea of Galilee, or the Mediterranean; see also Gesensius ("Comment. zu Jesaias," Th. I, pp. 350-354) for further proofs. That this very important sea road, which during the middle ages was used by caravans from Damascus to Phœnicia, was meant by Quaresmius ("Eleucid. Terr. Sctae," T. I, Lib. I, c. 8, fol. 19) when he said "via maris publica quedam via est, qua venitur ex Assyria ad mare mediterraneum," can be proved by a look on the map: the high road I marked as Via Maris on the Jaulân map, leaves Damascus, and follows the level Haurân plateau (or rather Jeidûr) to S'asâ and continues in a straight line to el Kuneitra, and from here as direct as possible through the Jaulân to the Jisr Benât Y'akûb, from here it follows the Jordan course along the slopes forming the western banks of the river until it arrives at the ruined Khân Minyeh (by some supposed to be Capernaum) which lies very near the Sea of Galilee. Here, or at Khân Jubb Yûsef, a ruin a little north of Khân Minyeh, the high road must

MONTHLY METEOROLOGICAL TABLE DEDUCED FROM OBSERVATIONS TAKEN AT **SARONA** BY HERR
SEA SHORE, ON SANDY SOIL, AND ABOUT 50 FEET

By JAN

Months, 1883.	Pressure of Atmosphere in Month. Corrected to 32° Fahrenheit.				Temperature of the Air in Month.							Mean Read	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all Highest.	Mean of all Lowest.	Mean daily Range.	Mean.	Dry Bulb.	
	in.	in.	in.	in.	°	°	°	°	°	°	°	°	
January	30·088	29·527	0·561	29·898	78·0	39·0	39·0	64·4	48·7	15·7	56·5	54·4	5
February	30·099	29·624	0·475	29·924	72·0	41·0	31·0	62·8	45·6	17·2	54·2	53·4	5
March	30·060	29·631	0·429	29·838	97·0	35·0	62·0	70·5	49·4	21·1	60·0	62·0	5
April	30·042	29·533	0·509	29·775	95·0	40·0	55·0	72·8	50·0	22·8	61·4	66·7	5
May..	29·953	29·635	0·318	29·801	99·0	48·0	51·0	76·7	55·2	21·5	66·0	72·0	6
June	29·805	29·666	0·139	29·735	89·0	59·0	30·0	83·1	63·6	19·5	73·3	79·4	7
July..	29·771	29·597	0·174	29·689	88·0	63·0	25·0	84·4	67·0	17·4	75·7	81·9	7
August	29·803	29·563	0·240	29·697	92·0	65·0	27·0	88·2	69·4	18·8	78·8	84·6	7
September	29·901	29·607	0·294	29·748	106·0	58·0	48·0	87·7	61·0	27·7	74·4	83·4	7
October	29·977	29·751	0·226	29·886	94·0	53·0	41·0	84·1	61·8	22·3	73·0	78·4	6
November	30·020	29·687	0·333	29·895	84·0	49·0	35·0	74·3	54·5	19·8	64·4	66·4	6
December	30·106	29·705	0·401	29·924	76·0	40·0	36·0	65·7	46·6	19·1	51·1	56·3	5
Means	29·969	29·627	0·342	29·818	89·2	49·3	40·0	76·2	56·1	20·2	65·7	69·9	6
Number of Column ..	1	2	3	4	5	6	7	8	9	10	11	12	

OREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF **JAFFA, SYRIA,** 1½ MILE FROM THE OVE SEA-LEVEL. LATITUDE 32° 4′ N., LONGITUDE 34° 47′ E.

LAISHER, *F.R.S.*

9 a.m.	Vapour, 9 a.m.			Degree of Humidity.	Weight of a Cubic Foot of Air.	Wind.								Calm, or nearly Calm.	Mean Amount of Cloud.	Rain.	
						Relative Proportion of										Number of Days on which it fell.	Amount Collected.
Dew Point	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.			N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
°	grs.	grs.	grs.	°	grs.												ins.
49·4	·353	4·0	1·1	83	538	4	2	1	4	6	9	3	0	2	7·2	20	11·32
49·0	·347	4·0	0·7	85	539	1	2	1	6	2	7	0	0	9	6·2	14	3·71
50·4	·367	4·1	2·1	66	529	2	0	0	0	7	4	2	0	16	4·2	7	2·52
53·5	·410	4·5	2·7	63	523	0	0	0	0	4	3	4	1	18	4·2	3	0·52
59·7	·514	5·6	2·9	65	517	1	1	0	0	0	7	4	1	17	3·2	0	0·00
66·8	·656	7·1	3·6	66	509	0	1	1	1	0	8	4	1	14	1·9	0	0·00
68·3	·690	7·4	4·3	64	505	0	0	0	0	0	16	12	0	3	2·9	0	0·00
69·0	·711	7·5	5·1	59	502	0	0	0	0	0	9	7	3	12	2·7	0	0·00
67·0	·660	7·0	5·1	58	505	6	0	0	0	0	8	0	2	14	2·1	0	0·00
64·0	·597	6·5	4·0	62	512	1	2	2	0	4	3	1	0	18	4·9	5	1·36
58·0	·481	5·4	1·9	74	525	0	0	1	3	13	1	1	0	11	5·1	11	8·14
50·8	·371	4·1	0·9	81	536	0	1	1	12	9	1	0	0	7	5·3	11	2·49
58·9	·513	5·6	2·9	69	520	Sum. 15	Sum. 9	Sum. 7	Sum. 26	Sum. 45	Sum. 76	Sum. 38	Sum. 8	Sum. 141	4·2	Sum. 71	Sum. 30·06
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

have bifurcated, taking in one sense a southern direction to the city of Tiberias, to Beisân (Beth Shean, Scythopolis), &c., and in the other sense a western course to the ports of the Mediterranean, to 'Acca of the Phœnicians, by the way of the plain and the Wady 'Abellîn, or if bifurcating at the Khân Jubb, Yûsef by the way of Râmeh and Mejd el Kerûm (to 'Acca).

At all of these places mentioned, as well as along the course of the road through Jaulân, the different Khâns or Caravanserais, through the Buttauf and W. 'Abellîn, at Rameh and other sites, we find distinct remains of paved Roman roads ; the direction of the road from Damascus to 'Acca is straight, and the nearest route possible ; the regions it crosses are plateaus, plains and level countries, in fact a country which, although now desolated and covered with ruins, is and was designated by nature to be a great commercial highway. Considering all these facts in favour of the opinions given with regard to the Via Maris, and considering that all other roads from Damascus to the Sea, to Tyre and Sidon, &c., have to pass mountainous regions and winding passages, I find no objection of identifying the " Via Maris " in its general features, and in the sense named during the middle ages with the present commercial and caravan road from Damascus to the Jisr Benât Y'akûb or by Khân Miniyeh to 'Acca and Haifa, all the more as we can see from the commerce of the 11th, 12th, and 13th centuries, as given in the excellent work of Heyd, " Die italienischen Handelsclonieen in Palaestina " (I, p. 16, 17 ff.), that the city of 'Acca had a great interest in the Indian commerce, that products of India found their way through the Euphrates Valley to the great Emporium of Damascus, and continuing *by the shortest way* to Beirut and 'Acca, and that the weapons and arms of Damascus manufacturers were exported to Egypt by the port of 'Acca ; on the other side Haifa formed the natural harbour for Tiberias ("Heyd," I, p. 17) which city (Tiberias) " was industrious and had a lively trade by caravans."

G. Schumacher.

METEOROLOGICAL OBSERVATIONS.

Sarona, 1883.

The numbers in column 1 of this table show the highest reading of the barometer in each month ; the maximum for the year was 30·106 ins., in December. In the years 1880 and 1881 the maximum was in January, in 1882 it was in February ; the mean of the three preceding highest pressures was 30·251 ins.

In column 2, the lowest reading in each month is shown ; the minimum for the year was 29·527 ins., in January. In the year 1880 the minimum was in April, in 1881 in February, and in 1882 in July ; the mean for the three preceding years was 29·519 ins.

The range of barometric readings in the year was small, being

0·579 in. only. The numbers in the 3rd column show the range of readings in each month; the smallest, 0·139 inch, was in June, and the largest, 0·561 inch, was in January.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·924 ins., occurred both in February and December, and the smallest, 29·689 ins., was in July.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 106°, in September, the next in order was 99° in May, and 97° in March; in the three preceding years, viz., 1880, 1881, and 1882, the highest temperatures were 103°, 106°, and 93° respectively; the first day in the year 1883 the temperature reached 90° was on the 30th of March, and it was 97° on the next day; in April the temperature exceeded 90° on one day; in May on one day; in August it reached or exceeded 90° on six days; in September there were five days when the temperature reached or exceeded 90°; the highest in the year, 106°, took place on the 30th; in October, on the 29th, the temperature reached 94°, and this was the last day in the year that the temperature was as high as 90°; therefore the temperature reached or exceeded 90° on 16 days; in 1880 on 36 days, in 1881 on 27 days, and in 1882 on 8 days in the year.

The numbers in column 6 show the lowest temperature in each month; the lowest temperature in the year was 35° in March, the next in order was 39° in January, and 40° both in April and December; in January there was only one day when the temperature was below 40°, and in March on one day, when it was as low as 35°, on the 17th; it was not below 40° in any other month of the year; therefore the temperature was below 40° on only two nights in the year; in the year 1880 it was below 40° on 16 nights, in 1881 on 2 nights, and in 1882 on 14 nights.

The yearly range of temperature was 71°; the range of temperature in the year 1880 was 71°, 1881 was 67°, and 1882 was 59°.

The range of temperature in each month is shown in column 7, and these numbers vary from 25° in July to 62° in March.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature, are shown in columns 8, 9, and 10, respectively. Of the high day temperatures, the lowest appears in February, 62°·8; and the highest in July, 88°·2; that in August is nearly of the same value. Of the low night temperatures the coldest, 45°·6, took place in February; and the warmest, 69°·4, in August. The average daily range of temperature, as shown in column 10, in January 15°·7 is the smallest, and in September 27°·7 is the greatest.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only are shown. The month of the lowest temperature is December, 51°·1; in the year 1880 the month of the lowest temperature was January, 50°·7; and in the years 1881 and 1882 the lowest were in February, viz., 56°·2 and 49°·8 respectively; the mean for the three years being 56°·2. The month of the highest temperature was August, 78°·8; in the years 1880, 1881 and 1882,

the maximum was in August, and were 79°, 80°·1, and 78°·6 respectively. The mean for the three years was 79°·2. The mean temperature for the year was 65°·7, for the three preceding, viz., 1880, 1881, and 1882, were 66°·4, 66°·7, and 65°·5 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb-thermometer, taken daily at 9 a.m., and those in column 14 are the monthly temperature of the dew-point, or that temperature at which moisture would have been deposited. The elastic force of vapour is shown in column 15; in column 16 is shown the weight of the water present in a cubic foot of air; in January this was as small as four grains, and in August as large as 7½ grains. The numbers in column 18 show the degree of humidity, saturation of the air being considered 100; the smallest number indicating the dryest month, was 57 in September, and the largest 85, in February. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent winds in January were S. and S.W., and the least prevalent were E. and N.W. In February the most prevalent were S.E. and S.W., and the least were W. and N.W. In March the most prevalent was S., and the least were N.W., E., and its compounds. From April to September the S.W. winds were most prevalent, and the least prevalent winds generally were N., E., and compounds of E. In October the most prevalent was S., and the least was S.E. In November the most prevalent was S., and the least prevalent were N. and its compounds; and in December the most prevalent winds were S.E. and S., and the least prevalent were N., W., and N.W. The most prevalent wind for the year was S.W., which occurred on 76 times during the year, of which 16 were in July, and 9 in both January and August; and the least prevalent wind for the year was E., which occurred on only 7 times during the year, of which two were in October, and one in each of the months of January, February, June, November, and December.

The numbers in column 29 show the mean amount of cloud at 9 a.m., he month with the smallest amount is June, and the largest January. O the cumulus, or fine weather cloud, there were 119 instances in the year; of these there were 21 in August, 20 in July, and 13 in September, and only 3 in December. Of the nimbus, or rain cloud, there were 63 instances, of which 18 were in January, 12 in February, and 11 in December, and 3 only from April to September. Of the cirrus, there were 22 instances. Of the stratus there were 24 instances. Of the cirro-cumulus there were 39 instances. Of the cirro-stratus 14 instances in the year, and 84 instances of cloudless skies, of which 14 were in June, 13 in May, and 11 in March.

The largest fall of rain for the month was 11·32 ins. in January, of which 1·31 inch fell on the 9th, and 1·30 inch on the 8th; and the next largest fall for the month was 8·14 ins. in November, of which 3·13 ins. fell on the 3rd, and 1·31 inch on the 25th. In 1880 the largest fall in any month was 10·05 ins. in December; in 1881 the largest was 5·09 ins.

in November, and in 1882 the largest was 7·22 ins. in February. No rain fell from April 25th till October 10th, making a period of 167 consecutive days without rain. The fall of rain in the year was 30·06 ins., being 1·38 in., 12·57 ins., and 7·97 ins. larger than the falls in 1880, 1881, and 1882 respectively ; and the mean fall of rain for the three preceding years was 22·55 ins. The number of days on which rain fell was 71, in 1880 rain fell on 66 days, in 1881 on 48 days, and in 1882 on 62 days.

JAMES GLAISHER.

NOTES BY MAJOR CONDER, R.E.

I.

PROFESSOR SAYCE ON THE HITTITES.

THE Religious Tract Society have published an interesting little book by Professor Sayce on the Hittites, which will no doubt aid to instruct the general public, though it contains nothing new to scholars. With the greater part of its contents I am fully in accord, but there are occasional statements which should, I think, at once be questioned before they become widely adopted, in the interest of exact archæology; and I hope that these lines may meet Professor Sayce's eye, and induce him to explain or to reconsider the points in question.

When Professor Sayce states that the Hittite monuments are still undeciphered, he, no doubt, expresses his present opinion. In that case he must be supposed to have withdrawn the claim which he made in 1884, to have deciphered and translated several of the texts, as given in a lengthy article in "Wright's Empire of the Hittites." To these translations he makes no reference in his present volume. When, however, he says that "Major Conder's system of decipherment has not yet obtained the adhesion of other scholars," I may be allowed to remark that at least two scholars have informed me that they believed me to be right as to the language, and these scholars perhaps better acquainted with Turanian languages than any others in England. In his last letter one of them says of my recent paper in the *Quarterly Statement* that it "marks a distinct advance, and places the comparisons on a firm foundation."

Professor Sayce makes other statements as below :—

Page 12. "Hamath and Kadesh on Orontes being their most southerly points." He, apparently, is unaware that Sir C. W. Wilson discovered a Hittite monument at Damascus.

Page 15. "The Hittites were a people with yellow skins and Mongoloid features" (repeated p. 101 yet more strongly). This is what I have always urged. Why, then, dispute the probability that their language also may have been Mongolian? It appears, however (p. 134), that "the

Vannic may belong to the same family of speech." Now, as regards Vannic, we have the opinion of a good Akkadian scholar (Bertin, "Languages of the Cuneiform Inscriptions"), that Medic, Vannic, and Akkadian belong to the same family of ancient agglutinative speech. Professor Sayce makes no further allusion to Georgian in his present work, which is perhaps due to the fact that no known Hittite name or word has ever been found comparable with Georgian.[1]

Page 15. The Amorites are described as having "white skins, blue eyes, and reddish hair."[2] Yet, when we turn to Mr. F. Petrie's list, we find the Amaur described as having "red" skins; and the blue eyes are attributed to the Kheta. It is by no means certain that the colours have retained their original hue. The only people marked as "white or yellow" in Mr. Petrie's list are the Shairdana, and the red hair is not attributed to the Amaur. Some Kheta are described as having "green hair"! It is certain that in some cases the colouring is merely decorative, and in others faded.

Mr. Tomkins quotes Mr. Osborn as making the Amorites blue-eyed, but this seems, according to Mr. Petrie's list, to be a mistake. The hair, according to this description, was black ("Times of Abraham," p. 85), and the complexion sallow. My own belief is that the Amorites were a Semitic tribe; but, at all events, the idea of a fair people in Palestine rests on no real foundation.

Page 46. The Patinians are said to have been a people of "Hittite descent." I am not aware of any authority for this.

Page 49. The Assyrians are said to have used the name Hittite "no longer in a correct sense." Yet they only say that the town of Ashdod was Hittite, and there is no historic improbability in the existence of Hittites in this part of Palestine in very late times. Surely the Assyrian scribe knew better than we can know.

Page 6. Professor Sayce adheres to his favourite term, the "Hittite Empire," but has explained it to mean little more than a confederacy such as we know from the monuments did exist between the Kheta and other tribes. The "forgotten Empire," however, is now disappearing, the Lydian and Medic Kingdoms being the real authors of the Asia Minor civilisation, and the Medic and Lydian races being of the same stock with the Kheta. Herodotus probably knew more about Asia Minor than we can hope to learn by theories unsupported by the evidence either of literature or of inscriptions. He knew of non-Semitic Syrians, of Lydians, Carians, and Medes, before the Aryans came from Greece and from Persia; but he knew nothing of a "Hittite Empire," nor do the cuneiform or Egyptian texts mention any Hittites save in Syria.

[1] The sounds for king and country in Hittite appear to have been *Ko* and *Me*. In Georgian, the word for king is *Mephe*, and for country *Obai*, which evidently do not aid us.

[2] Prof. Sayce, in the "Academy," speaks of fair people in Palestine. There is no native stock in Palestine which is fair, but there is a certain admixture of Aryan blood in the country, probably of very recent origin.

Page 78. "The mural crown" is not known on Hittite monuments. The bonnets worn by the goddesses at Boghaz Keui are similar to those now worn by Tartar women.

Page 80. The "double-headed axe" was not peculiar to Hittites. It was used by Carians and by Etruscans.

Page 81. Professor Sayce calls the turned-up boot a snow-shoe, a mocassin (p. 140), and a Turkish shoe—three entirely distinct things. It was known to the Egyptians and Etruscans as well as to the Hittites.

Page 81. The hieroglyph for country represents "two or sometimes three pointed mountains." It only occurs twice, and neither of these cases have three peaks. Professor Sayce considers Hittite and Egyptian quite distinct systems, and states that in the latter animals are represented by whole figures, but in Hittite by heads only. Yet we have already two cases in Hittite of whole figures of animals, while heads of animals are not uncommon in the earlier Egyptian texts. With increased graphic power the whole figure seems to have been attempted, and the distinction is not complete.

Page. 102. The pigtail (first noticed by the late Dr. Birch) convinces Professor Sayce of the Mongol origin of the Kheta, yet he never mentions the Mongol words recoverable of their language.

Page 111. "Tar or Tarku, 'the king,' who is the Zeus of Lucian." Professor Sayce does not give any reason for rendering Tarku "king." The readers of the *Quarterly Statement* will be aware (January, 1889), that this is a Mongol and Turkic word for king.

Page 115. "The art of the Hittites was essentially Babylonian in origin." This is just what I urged when comparing them with the Akkadians.

Page 117. The Sphinxes of Eyuk are compared with the Egyptian Sphinx. But on an Akkadian cylinder we have also two Sphinxes represented, and others in Etruria and Phœnicia.

Page 120. The lions of Mycenæ are called "Hittite." To me it seems more likely that they were Pelasgic, and the Pelasgi must—judging from the word *Tepœ*, said by Varro to mean "mountains"—have been a Turkic people like Medes, Akkadians, Lydians, and Carians.

Page 129. Tarkon is said to be a "distinctive Hittite word." If so, the evidence of comparative vocabularies shows the Hittite language to have been Turkic.

Page 130. The four strokes for *me* on the boss of Tarkutimme are said to represent the "numeral four." We are not told in what language four has the sound *me*. In Georgian the sound is *Othkhi*. I have shown that this sign does not on the Hittite monuments represent a numeral, because it is a suffix. We have a plural suffix *me*, and this, I believe, is the true value of the sign.

Page 130. There is no evidence at all that the Carchemish monuments contain the names of any kings. As to the "King whose name ends -me Tarku," Professor Sayce has stated that Tarku was Jupiter (p. 111).

Page 132. Although Professor Sayce believes the syllabary of Cyprus to be derived from the Hittite, he makes no mention of the recovery of fifty sounds of the language thus made possible. Hence he has made no use of the very method whereby the study of cuneiform was first made possible and the Akkadian language discovered.

Page 135. *Irkhulena*, "the moon god belongs to us," is a funny name for a man. It seems to me more like Turkish *Er*, "man," and *Khulin* "great," *i.e.*, "the hero" or Hercules.

Professor Sayce's volume therefore represents the Hittites minus their language, which language he has not attempted to compare with any other, though we have Carian words like Kos and Taba, Lydian words like Tegoun and Lailas, Etruscan words like Tarquin, &c., &c., comparable with the old Medic and Akkadian, and showing us an early Turkic people in Asia Minor to whom the Hittites were akin.

Curiously enough, Professor Sayce has since written from Egypt ("Academy," 19th January, 1889), to say he has a letter in what he thinks is a Hittite dialect, and that the "verbal forms are Akkadian." Should he adhere to this view he will, perhaps, withdraw his previous statement that "no scholar is likely to admit" a comparison of Hittite and Akkadian. He is also now inclined to believe in more than one "Hittite" language. In Asia Minor, in 500 B.C., I believe four languages were spoken:—(1) Greek; (2) Lycian (akin to Zend); (3) Phrygian (akin to Armenian); (4) Lydian and Carian (akin to Turkish). This is a distinction sanctioned not only by Herodotus, but by relics of these languages. Of these, however, 1, 2, 3 were later in reaching the country than No. 4.

When Professor Sayce claims to have "laid the foundation" of Hittite knowledge, it must not be forgotten that Dr. Wright first broached the idea in connection with the Hamath stones, and that Chabas and other scholars had written at length on the Kheta in 1866, Professor Sayce's first paper being ten years later. No one, however, would wish to dispute the value of Professor Sayce's contributions to the subject in many particulars.

II.

The so-called Hittite Monuments of Keller.

The monuments at Keller, or Sinjirli, west of 'Ain Tab, at the north extremity of Syria, are mentioned in "Altaic Hieroglyphs," and photographs were kindly sent to me by Mrs. Barnes. They are given by Perrot in his "History of Art," in 1886, and have recently been published from the photographs by Professor Sayce; but one slab, of which I here give a copy from the photograph, seems to have escaped notice, and is very important, as it has a hieroglyphic in the corner, which none of the rest have.

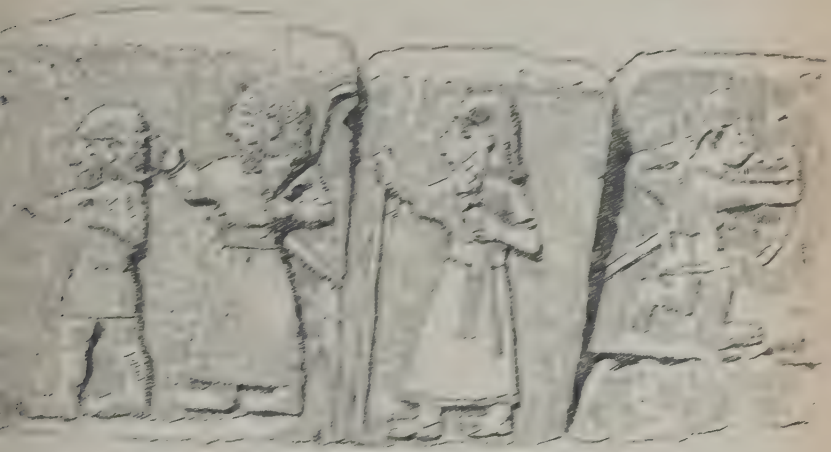
The lion-headed deity is here shown in the short tunic common to other Cappadocian bas-reliefs, holding a rabbit (or perhaps a fawn, but

there seem to be no hoofs) by the hind legs. The attitude is just that of a deity represented on a bas-relief at Amrit, in Phœnicia, standing erect on a lion. He is human headed, but holds the small animal in like manner, and waves a sword. The lion-headed god is also twice represented near Pteria, in Cappadocia. He is well known as Nirgal (his Akkadian name, Assyrian *Nergalu*), in Babylonia, and also found in India (as Yama) and in Egypt.

The hieroglyph in the corner is the head either of a rabbit (as on the Merash lion) or of an ass (as at Pteria, Carchemish, &c.). It is probably the name of the god, and, as I explained in "Altaic Hieroglyphs," both the ass's head and the hare's head are known on the "Hittite" monuments, with the sign of deity above. It appears that the name of the lion-headed deity had the same sound as the word ass; and I have recently described a cylinder, brought home by Mr. Greville Chester, on which a lion is represented as "Altaic Cylinders," in P. E. F. *Quarterly Statement*, 1888 with the head of an ass as a hieroglyph above it. This curious lion-headed god is another link between the Akkadians and the early tribes of Syria and Cappadocia, whom antiquaries call "Hittite," though some bore other names.

The figures in the bas-relief given herewith, from the same site, are of special interest, though there is no writing on the blocks. A prisoner is brought—by his pigtail—by a long-robed, bearded personage. The beard in this case is—as at Ibreez—in the Phœnician fashion, without the heavy moustache of the Assyrians. The outline of the faces is just

Plan of the Acropolis of Tiryns on a limestone pedestal by the French engineer De Saulcy.



Both these figures have the Cretan opposition on the next figure to the right wrist-to-elbow. The figure is also bearded, but wears a very distinct well-plaited pigtail, not unlike that worn by some of the Egyptians in the great battle-pictures in the British Museum. This group is part of a long subject, including a stag and a lion at which the bearded figure, a winged griffin, rampant sphinx and a man with a hammer or axe, which appears to have been an Asia Minor weapon. The axe was called *Labrys* in Carian and Lydian speech—a word for which I have been as yet unable to find any equivalent.

We are possibly on the verge of further discovery as regards these eminent populations. Meanwhile I regard it as shown, by the surviving words of their language, that the Lydians, Carians and Etruscans, like the Armenians were a Turanian people akin to the Mysian and Abreonian. The Phrygians were not—they were Aryans from Europe. The Lydians, who were "modern" in the time of Herodotus, spoke a Aryan language akin to Zend and to Persian; but these Aryan tribes were not resident in Asia Minor probably as far back, and the ancient monuments of Carpathoria seem to be the work of the same race that had left monuments at Lemnos, and which was no doubt the old Lydian Carian race.

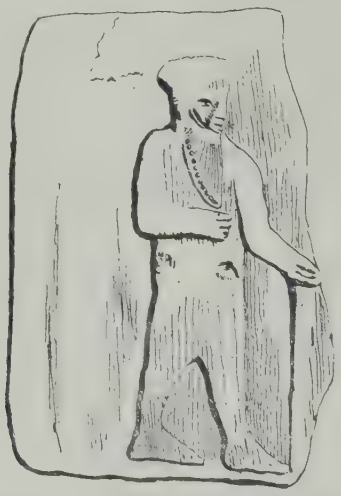
III.

The Tell of Salahiyeh Movement.

Prof. W. Wright has kindly allowed me to make the photograph of the very ancient monument discovered in the excavations at Tell es Salahiyeh, near Damascus. It is one of the rudest and most archaic

known in Syria, and in general character resembles those monuments which antiquaries now call "Hittite."

It should be noted that the cap seems to have the shape which on the Egyptian monuments distinguishes the Pulestha (Philistines) and Takrui (probably Teucrians). It is also to be noted that the beard without moustache is represented as on the Ibreez monument, which has a "Hittite" inscription, and also on the monument of Keller. This fashion of wearing the beard prevailed extensively in Phœnicia and Asia Minor and among Greeks. The Assyrian sculptures, on the other hand, usually represent a moustache.



This is the most southern of the monuments of this class yet known. There is a remarkable monument at Amrit, in Syria, usually called Phœnician, representing a god standing erect on a lion, which may be of the same class, and the rude and archaic Hercules of Amathus—a gigantic statue now in the porch of the Constantinople Museum—a horned and bearded god, may also be what is called "Hittite." This deity, like the lion-headed god of Keller, is holding up an animal by the hind legs, but the head of the animal is lost. Probably he is represented tearing the animal asunder as fawns were torn in honour of Dionysus—a kind of sacrifice which also existed in China. A very good drawing of this Amathus statue, which should be compared with the present sketch, occurs in Perrot's "Histoire de l'Art," in the Phœnician volume.

IV.

The so-called "Hittite" Hat.

The cone-shaped hat on the monuments of Cappadocia and Ionia approaches in form the high tiara worn by Kheta Sar on an Egyptian bas-relief, and is a fairly distinctive article of costume. The following notes are, therefore, of some interest, perhaps, as indicating the race which wore this hat. Herodotus says (vii, 64) :—

"The Sacæ, who are Scythians, had on their heads caps which came to a point and stood erect."

In Italy, also, the Tutulus is described by Varro (*see* Dennis, "Etruria," i, *p.* 341) as a high white cap of the shape of a cone (*meta*) worn on the heads of priests. The Flamens wore a wool cap of the same form—perhaps not unlike the Astrakhan hat of the Circassians. An Etruscan goddess is represented in a high cap of this kind, with four wings, and holding a hen (ii, p. 465).

In the travels of Rubuquis in 1255 A.D., in Tartary, we find similar hats described.

"They have an ornament for their heads," says the good monk, describing the nomadic people of South Russia, "which they call *Botta*, which is made of the bark of a tree, or of some such substance as they can find, which by the thickness and roundness thereof cannot be held but in both hands together, and it hath a square sharp spire rising from the top thereof, being almost two feet in length, and shaped like a pinnacle. This Botta they cover all over with a piece of rich silk, and it is hollow within, and upon the midst of this same spire they place a bunch of quills, or slender canes, a foot and a half long or more, and the bunch on the top thereof they beautify with peacocks' feathers, and round about they stick the feathers of a mallard's tail and adorn it with precious stones. Also great ladies wear this kind of ornament on their heads, binding it strongly to a kind of hat or coif which hath a hole in the crown fit for the spire to come through."

A hat of this kind, but edged with fur, is still worn by the dervishes in Turkestan (*see* Schuyler's "Turkestan," frontispiece, vol. ii), but is not more than about a foot in height. The Maulawiyeh dervishes in Syria also wear a somewhat similar hat, but it is a truncated cone made of fine felt, and with the green turban sometimes wound round it. The cone was also worn by the Turks in the 18th century with the Moslem turban wound round it (*see* portrait of Hassan Pasha in the "Modern Traveller, Syria," vol. i, p. 25). Thus the old Scythian headdress of the Cappadocian monuments has been worn in various ages by Turanian peoples, and still survives in our own time.

V

The Stone Zoheleth.

As to whether the word Eben can apply to a rock (a question more than once raised of late), Gesenius may be held to be a respectable authority. In his lexicon he gives, under אֶבֶן (1) "a stone of any kind," (2) a "a gem," (3) "ore," (4) "rock." I think that any person acquainted with Hebrew and Arabic would feel satisfied by M. Clermont-Ganneau's remarkable discovery of Zoheleth.

VI.

House of the Holy Ghost.

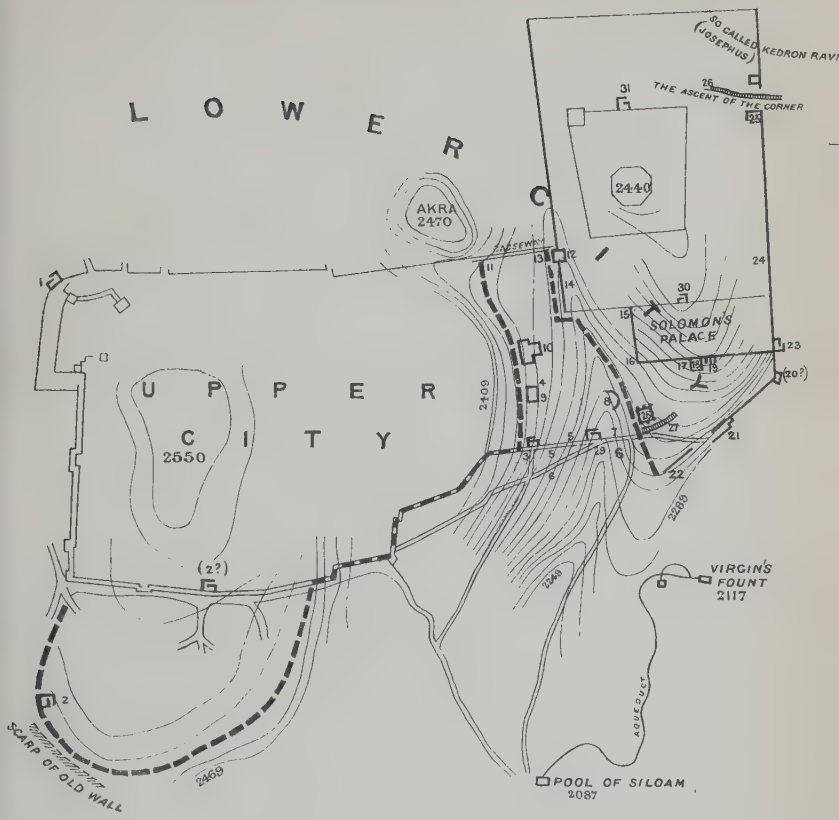
It may be necessary to note that the map mentioned by Dr. Chaplin, bearing this name, is a reduction from one made by me in 1883, and the place in question is marked where he showed me the site so called in 1881. I am afraid, however, it does not occur in any mediæval account of the city, as far as my reading goes.

NEHEMIAH'S SOUTH WALL, AND THE LOCALITY OF THE ROYAL SEPULCHRES.

As the basis of the accompanying plan, I take the ascertained rock contours, issued with the Memoirs of the Survey, and place upon them, to start with, the outlines of ancient structures ascertained by Sir C. Warren. The modern Zion being the Upper City of Josephus, all the lower hills lying about it, so far as they are built upon, will be the Lower City. Accepting Warren's Akra, the Akra becomes part of the Lower City when the Causeway is built and joins it to the eastern hill,[1] and more thoroughly so when the valley north of the causeway is filled up in the days of Simon Maccabæus. The Lower City would thus lie round about the Upper City in crescent form, and we may agree with those who translate Josephus's *'αμφίκυρτος* in that sense (Bell. v, 4, 1). The valley descending from Herod's Gate and entering the Kedron just north of the Golden Gate, is probably Josephus' "valley *called* Kedron," possibly the original Upper Kedron before it was filled up. As it was not filled up till Pompey's time, it was still a valley in Old Testament times, and its existence is implied in Nehemiah iii, 31. The sites of walls and buildings adopted from Warren for the purpose of this paper are (1) the Temple

[1] May not this causeway represent Millo? The word means a causeway or an embankment.

SKETCH PLAN SHEWING NEHEMIAH'S SOUTH WALL



*** The contour lines represent successive steps of ten feet. The height at the Triple Gate is 2379 feet.

REFERENCE.

Suggested line of wall

1 Valley gate
2 Dung gate
3 Fountain gate
4 King's pool
5 Wall of Pool of Shelah
6 King's gardens
7 Stairs of the City of David
8 Sepulchres of David
9 The Pool that was made
10 House of the mighty
11 Turning of the wall
12 The Armoury
13 Turning of the wall
14 House of Eliashib
15 Turning of the wall
17 Turning of the wall
18 Tower at King's house (Tower that standeth out)
19 Water gate
20 Tower that lieth out
21 Great tower that lieth out
22 Wall of Ophel
23 Horse gate
24 Houses of priests
25 Gate Miphkad
26 Ascent of the corner
27 Going up of the wall
28 House of David
29 Gate between two walls
30 Gate of the Guard (2 Kings, xi. 19)
31 Gate of the Guard (Neh. xii. 39)

courts, as represented in the plan; (2) Solomon's palace, south of the Temple, but occupying only two-thirds of the width of the Haram Area; (3) the wall of Ophel, and its towers, the wall terminating 700 feet from its elbow; (4) the great causeway, extending westward from Wilson's arch.

The Temple and Palace, as given by Warren, leave a vacant square at the south-western corner of the Haram, where the masonry for 300 feet each way from the corner is different from the rest, and more recent.

With this ascertained nucleus of buildings, and the ascertained contours of hills and valleys, I proceed, first, to trace the south wall of Nehemiah, and afterwards to test its accuracy. Let us bear in mind that Nehemiah repaired only, and did not build *de novo*, so that the lines of wall to be recovered are really older than his time. From the Jaffa Gate we follow the existing line of wall southward, as far as it extends. We might be content to follow it eastward across the ridge of the modern Zion—and might say in defence of that line that later builders found it easier to repair old walls than to build new ones—but the point is not vital to the main contention of this paper, and so the wall may be allowed to go round the brow, and thus take in the rock scarp and the remains of masonry at the south-west shoulder. In either case the wall made a bay up the Tyropœan Valley, as Lewin contends ("Sketch of Jerusalem"), and as Josephus plainly declares (*ὑπὲρ τὴν Σιλωάμ*, Bell. v, 4, 2). By following the eastern brow of modern Zion right northward to the causeway, the wall completed the circuit of the Upper City, which, according to Josephus, had a wall of its own, going all round. Where it joined the causeway it would make a right angle or something near it. On the east side a wall making a similar angle with the causeway would run southward. The primary object of this wall would be to defend the Temple and the Palace and other buildings upon Moriah and Ophel; in other words, the eastern hill, in the first instance, had its own separate defending wall, the same as the western; and hence the intermediate "suburbs" came at length to be enclosed in the city. The course of this wall would be influenced partly by the contours of the ground, and partly by the outline of buildings existing on the ground. It would ultimately join the wall of Ophel. An objection may be raised to this line of wall as being partly in a valley. But it is only in the valley where the outline of Temple and Palace force it to be so; and it cannot be said to be useless, since it is, of course, an obstacle to an enemy. Besides, an *a priori* objection to the wall can have but little weight in the face of Nehemiah's descriptions which appear to require its existence, and which become intelligible for the first time when its existence is allowed.

As dwellings, pools, or gardens would sooner or later be made in the intra-mural suburb, a transverse wall would be built east and west across the valley, to protect them, and such a wall would greatly strengthen the city at the same time. For this cross wall the existing line of wall may be followed, in the absence of historical evidence for placing it elsewhere.

This wall is, of course, in a valley, but it must be remembered that both the Upper City and the Lower are protected without it, and it is of some advantage as an additional defence.

With this arrangement, adopted for good reasons already given, the descriptions in Nehemiah can be understood in detail.

Nehemiah's Night-ride.

In chap. ii, 13, we read—"I went out by the Valley Gate" (this is at or near the Jaffa Gate, the head of the Tyropœan Valley—the *gaia*)—"even before the Dragon Spring and to the Dung Gate." This Dung Gate must be near the south-west corner of the city, to agree with chap. iii, 13. "Then I went on to the Fountain Gate"—a convenient exit from the Upper City for the Fountain of Siloam—"and to the King's Pool (*el-Berekath*)," a pool probably within the enclosed suburb, made by the king, or for the king, and near the king's garden, or the king's house. "But there was no place for the beast that was under me to pass." Why? Because here we have two walls in a narrow space, and the destruction of both of them had filled the valley with *débris*. "Then I went up by the brook (*nachal*, the Kedron) and viewed the wall, and turned, and passed in by the Valley Gate."

The Rebuilding of the Walls and Gates.

We pass over the repairing of the walls from the Sheep Gate, north of the Temple, to the Valley Gate in the west wall.

In verse 13: From the Valley Gate it is "1,000 cubits on the wall to the Dung Gate." This forbids any identification with the present Dung Gate.

In verse 15: Shallun, who repairs the Fountain Gate, repairs also "the wall of the Pool of Shelah by the king's garden." Allow that Shelah is Siloam, yet this need not be a wall running down to Siloam—those who take that line go wrong all the rest of the way—it is the transverse wall in the same valley above. Through a gate in this wall the Fountain of Siloam would be conveniently reached from the suburb; and this would be the "Gate between two walls," through which Zedekiah fled away (2 Kings, xxv, 4; Jer. xxxix, 4; lii, 7). The wall was *by* the King's garden (*le*=by, or near.) Shallun goes on "unto (*ad*) the Stairs (*maaloth*) that go down from the City of David." So the City of David includes Ophel, and the Stairs descend the Ophel slope westward into the bed of the Tyropœan.

Verse 16: "After him repaired Nehemiah, the son of Azbuk, unto the place over against (*neged* = in front of) the sepulchres of David." The wall of the Pool of Shelah was an offshoot or side work, so Nehemiah would take up the repairs by the Fountain Gate and work northward. He comes over against the sepulchres, which are therefore on the Ophel side, a little to the north of the Stairs. The entrance would have to be

low down in the valley bed, to be outside the wall which protects Ophel on the west. But why not? Nehemiah continues working northward "unto the pool that was made" (*berekah*, probably the king's pool of ii, 14), "and unto the house of the mighty men." If this is the house of David's body-guard, it will probably be within easy distance of David's house, while yet Nehemiah's description places it on the west side of the Tyropœan; so we may reasonably locate it as in the plan.

In the remaining short space on this side we have no less than four bands of workers, indicating that the destruction had been very great, as indeed Nehemiah found it to be when there was no possibility of his beast getting along; and the next indication of locality is in—

Verse 19, "the turning" of the wall, "over against the ascent to the armoury." The armoury, therefore, was in or near the north-eastern angle of the suburb.

Verse 20: We are now carried from "the turning" of the wall by the armoury, southward, "unto the door of the house of Eliashib, the high priest;" and we are not surprised to find his house here, for we are close alongside the Temple courts. The workers come *unto* the door of Eliashib's house, which thus seems to project westward, so as to be quite near to the line of wall; but they only come *over against* the less important houses which follow.

Verse 24: The sixth worker down this side comes to "the turning" of the wall and "unto the corner." The turning is not the same as the corner; the Hebrew language uses different words for a re-entering and a salient angle. Each of the two turnings at the causeway (vv. 19, 20) is called a *miqtzoa* (= a re-entering angle); but now, in v. 24, they come to a *miqtzoa* and to a *pinneh* (= a projecting angle). It is to be observed that we should not have such angles at this part but for the vacant square which Warren's examination of the masonry compelled him to leave—the wall for 300 feet each way from the south-west corner of the Haram being more recent than the rest.

The first salient angle is passed over because the worker who begins north of it continues his labours till he comes south of it, and so its mention is not necessary in defining the work done. (In like manner, in vv. 6–8, the Gate of Ephraim is passed by without mention, although, according to xii, 38, 39, it existed between the Broad Wall and the Old Gate.)

Verse 25: The mention now of another re-entering angle might perplex us, only that the same verse speaks of a "tower standing out from the king's upper house," and this may easily afford the angle.

Verse 26: We are now fairly on the hill of Ophel, and accordingly the workers who have been set to labour here are "the Nethinim dwelling in Ophel." There is also mention in v. 31 of a house of the Nethinim near the northern end of the east wall—still outside the Temple precincts.[1]

[1] The Nethinim were but servants of the Levites.

As soon as the Nethinim of Ophel get far enough south to look beyond the projecting tower just mentioned and see the Triple Gate, they are stated to be over against the Water Gate. At the same time they are over against the tower that standeth out. This is not necessarily the tower mentioned in the previous verse, as projecting from the king's house, but may, perhaps, be the one at the south-east angle of the Ophel wall, discovered by Warren.

Verse 27 : Where the Nethinim lay down their work it is taken up by the Tekoites, who presently come "over against the great tower that standeth out," namely, the large tower which Warren found. It is now not far to complete the junction with the Ophel wall, at the point where Warren found that wall to end abruptly ; and Nehemiah tells us that the Tekoites actually did this.

Verse 28 : The Ophel wall, being in good repair, is no more referred to ; and the next thing mentioned is the Horse Gate. As Warren could not find any gate in the Ophel wall, the Horse Gate must have been north of it ; and here it would be at a point convenient for entrance to Solomon's stables, which would, perhaps, be *under* the present vaults known by that name.

"Above the Horse Gate repaired the priests, every one over against his own house." These houses of priests are in a position exactly corresponding with the houses of Eliashib and others on the west side. The expression, "over against," implies that the city wall, which is being repaired, stands removed from the priests' houses, from the Temple courts, and it would be eastward of the present Haram wall. Herr Conrad Schick draws it so. I don't know his view about it, but it may possibly be the wall of Manasseh.

Verse 29 : An East Gate is referred to (*Mizrach*), not to be co-founded with the gate *Harsith*, the so-called east gate of Jer. xix, 2, in the Authorised Version.

When we come over against the Golden Gate—which Nehemiah calls the Gate Miphkad—we are just where Warren's tunnelling work was arrested by a massive masonry barrier—probably a part of the ancient city wall, 50 feet east of the Haram wall. Immediately we are at "the ascent of the corner." There is no corner now immediately north of the Golden Gate, and no ascent from a depth ; but it was just here that Warren discovered the deepest valley of all, and the wall buried 125 feet, so that we obtain just what we want. The stairs or steps would be cut in the rock, and it is not unlikely that they may yet be found.

The Route of the Processionists.

Chapter xii affords striking confirmation of the foregoing positions. At the dedication of the walls two companies start from the Valley Gate, and go opposite ways to meet in the Temple. Presumably the Valley

Gate was chosen to afford journeys of about equal length ; and this is another indication that the wall did not go down to Siloam. The party going south pass the Dung Gate, and reach the Fountain Gate. And now which way will they go? The wall has been repaired right ahead of them, and also the wall turning north, and they will have to choose between two routes. The Revised Version says they went "by (*ad*) the Fountain Gate and straight before them," and ascended *by* the Stairs of the City of David *at* the going up of the wall (not *by* this time, nor really "at," but *in—ba-maaleth le-chomah, i.e., in* the stairway of the wall *by* the Stairs of David—a different flight of stairs from the Stairs of the City of David, which descended into the valley bed).

Their way up these stairs and beyond carried them "above the house of David, even unto the Water Gate." The house of David here is close by the king's garden of iii, 15 ; and its position on the slope of the hill suggests a reason for calling Solomon's palace the king's upper house (or high house, iii, 25). Some say "the house of David" means David's tomb ; but if that be so, it only confirms the position which I am led to assign to the tomb. Observe also that the position required for the Water Gate here is again that of the present Triple Gate, the same as in iii, 26.

It deserves particular attention that the processionists pass quickly from the Stairs of David to the Water Gate, whereas in the re-building these two places are very wide apart, because the bend of the wall is followed. In iii, 15, we have the Sepulchres, the Pool, the House of the Mighty, four more bands of workers, the turning of the wall, the armoury, the house of Eliashib, the turning, the corner, and the out-standing tower—all between the point over against the Stairs of David and the Water Gate ; but none of these things come in the route of the processionists. This is easy to understand if the wall makes a bay up the Tyropœan, for then the short cut in the text corresponds with the short cut in the plan ; but it can hardly be made intelligible on any plan which omits this bay and carries the wall down to Siloam.

A superficial objection may be raised that the detour up the valley and *viâ* the causeway, avoided by the processionists, would be avoided by Nehemiah in repairing the walls, for why should he do more than repair the short transverse wall, when his object was speed? My reply would be that his object was strength and safety as well as speed. The transverse wall was no sufficient protection by itself, there being an easy approach up the valley, but it was valuable as an addition to the inner walls. Besides, Nehemiah had workers enough to be engaged at all parts at once, so that the completion of the work was not at all delayed by repairing the two north-and-south walls of the bend simultaneously with the cross wall, and indeed with the walls all round the city.

The line of wall being established as above, with the positions of David's House, the gate between two walls, &c., the accuracy of the restoration

may be tested by reading many incidents of the history in the light of it. The chief importance of the restoration lies in the support it gives to the view that the City of David included the Ophel hill, and in the indications afforded of the position of the Sepulchres, the "Gate between two walls," &c.

Incidents of the History.

Taking of Jerusalem by David.—If the walls on Ophel are to stand as above, the question arises whether the Rev. W. F. Birch's ingenious suggestion can be supported, that Joab, by ascending the shafts from the Virgin's Fountain, effected an entrance into the city? Apparently not so, unless a continuation of this series of passages remains to be discovered —which may be the case. On the other hand, David's camp would be near the Virgin's Fount, and his attack would be made on this side; for the above reading of Nehemiah favours the idea that the Zion or Lower City which he first captured was on the Ophel hill. David took the lower city by force, captured the akra afterwards, and joined them together to be one body—perhaps by the building of Millo, the causeway (Josephus, Ant. vii, 3, 1).

David's flight and exile; the Spies.—David's house was on Ophel. This is indicated by the references in Nehemiah, and agrees also with such passages as 1 Kings viii, 1–6, where the ark is *brought up* out of the City of David into the Temple (and 2 Sam. xxiv, 18; 1 Kings ix, 24). When David decided to flee because of the rebellion of Absalom, he would go down the Stairs of the City of David and pass out by the gate between two walls; and then, as we are told, he passed over the Kedron, ascended Olivet, and went down towards Jericho to cross the Jordan.

But he left friends behind him at the palace, and it was arranged that two sons of the priests should act as spies and bring him news (2 Sam. xvii). They waited outside the city, at En-Rogel, and a wench went and told them. If we might assume, with so many, that En-Rogel is the Virgin's Fountain, and might retain the supposition referred to above, that the rock-cut passages from the Fount could be entered from within the city, it would be natural to suppose that the spies descended the steps into the pool, and, when the lowness of the water allowed, passed beyond the pool into the passage, while the maid servant descended the staircases from within the city, taking a bucket to draw water, and so escaping suspicion. The spies then hied away to David with the information. The fact that En-Rogel was chosen as the hiding-place accords well with the view that David's house was on Ophel; for the news would come from the palace, and En-Rogel was certainly somewhere south or south-east of the city.

The death of Athaliah.—This incident affords some indications of locality, in beautiful agreement with Nehemiah. When this Queen-mother

heard that her son, the King, had been killed by Jehu, she snatched at the sovereignty for herself, and her policy was to slay all the seed royal. But one little child escaped, carried off by its nurse, and they were secreted in the Temple by Jehoiada, the High Priest. In the seventh year Jehoiada assembled the chiefs of the people in the Temple, produced the little child Joash, stood him upon the platform appropriated to the kings, and said, This is the rightful heir! The chiefs shouted their joy, when Athaliah heard the noise and rushed into the Temple to learn the cause. That she should hear so readily and find such easy access to the Temple, accords well with the supposition that she was living in Solomon's palace, close adjoining the Temple, as Warren places it. When Athaliah saw the state of things she cried,—"Treason, treason!" But she found no friends there. The priest said, "'Have her forth—slay her not in the house of the Lord!' So they made way for her; and she went to the entry of the Horse Gate to the King's house; and they slew her there" (2 Chron. xviii, 15; 2 Kings xii, 16). It is implied in this narrative that the Horse Gate was not only by the king's house, but that it was also the nearest point which could be considered fairly beyond the sacred precincts; and this is in full agreement with the position which we have assigned it.

In the context of the passages just quoted we find that Joash is carried "by the way of the gate of the guard into the king's house." This gate must, of course, have been on that side of the palace adjoining the Temple courts; it was probably due north of the Water Gate (*i.e.*, the Triple Gate), and it thus again accords with Neh. iii, 25, where the tower standing out from Solomon's house is said to be "by the court of the guard." The court of the guard may very well have extended from the Water Gate without to the Gate of the Guard on the Temple side of the palace. From Neh. xii, 39, it appears that there was a corresponding Gate of the Guard at the corresponding point on the north side of the altar.

The assassination of Joash.—When Joash grew to man's estate he made changes which displeased his people; and the short statement is that the conspirators slew him "on his bed," "at the house of Millo that goeth down to Silla" (2 Kings xii, 20, combined with 2 Chron. xxiv, 25) This is somewhat obscure. Fuerst says that Silla is the present David Street, a highway steeply descending. So far as appears it may just as well be any other descending path; and I fancy it was the "stairway of the wall" of Neh. xii, 37, close by the Stairs of the City of David, and close to the house of David. Joash was slain while going down Silla, not while going down *to* Silla, for there is no preposition here in the Hebrew text. We may suppose that he was living in David's house, and when he heard of the conspiracy he designed to flee down the Stairs and through the gate between two walls; but being a sick man he was being carried on a litter, as Lewin remarks; and on this particular stairway, I imagine, the assassins fell upon him.

Why David's house should be called the house of Millo is the next question, and I can only offer a suggestion. Millo was at first the northern boundary of the roughly-quadrangular "suburb," but it would, perhaps, in course of time, give its name to the whole of the enclosed space, or the whole of the four walls; and then, because David's house adjoined the eastern wall of the four, it was called the house of Millo. After Solomon had built a grander "king's house," there might be a reason for finding some other term for the house in which David had dwelt.

The flight of Zedekiah.—Not to multiply incidents, let us come now to the last King of Judah—Zedekiah. In his day Nebuchadnezzar came up against the city; and when, by a night surprise, he effected an entrance at the middle gate of the north wall, Zedekiah took alarm and fled away at once with his bodyguard. Whether living in Solomon's house or in David's, his way would be down the Stairs of the City of David into the bed of the Tyropœan; and then we are distinctly told that he fled by the way of the king's garden, by the gate betwixt the two walls (2 Kings xxv, 4; Jer. xxxix, 4; lii, 7). His plan was to take the route which David had taken when he fled from Absalom.

Jeremiah's prophecy.—In order to encourage the people during the captivity, Jeremiah predicts that Jerusalem shall be again inhabited and its borders extended. The measuring line is to go forth over against it upon the hill Gareb (east or north of the Temple), and shall compass about to Goath (this seems to be a sweep round the north-western, western, and south-western parts of the city); and the whole valley of the dead bodies and of the ashes (= Topheth, the broad junction of the present Hinnom and Tyropœan valleys), and all the fields (eastward) unto the Brook Kedron (and then northward), unto the corner of the Horse Gate toward the east shall be holy unto the Lord (Jer. xxxi, 38). This reference again confirms the position we have assigned to the Horse Gate.

Zechariah also describes Jerusalem in its length and breadth. It is to be lifted up and inhabited "from Benjamin's Gate (which would seem to be a Temple gate having a north-east position), unto the place of the first gate[1] (the first gate of the city, north-east, but not so much east as the Benjamin Gate of the Temple), unto the Corner Gate (which was at the north-west corner of the city, but is passed over in Neh. iii, because it needs no repair. But see a reference to it in 2 Kings xiv, 13; 2 Chron. xxv, 13). The north and south extremes named by Zechariah are the Tower of Hananel (same position as Antonia) and the king's wine-presses (in the neighbourhood of the king's garden, which we have already seen was near to the gate between two walls).

[1] As the Hebrew language reads from right to left, so when the gates are numbered, the counting takes the same direction, as does also Nehemiah's description of the repair of the gates and walls.

The "Broad Wall" at Jerusalem.

Was the Broad Wall (of Neh. iii, 8, and xii, 38) broad in its own dimensions, or so named for some other reason? It may seem to be only an academical question, but it is really of some importance in our endeavour to restore the plan of the ancient city. Lewin, in his "Sketch of Jerusalem," seeks to identify a certain piece of old wall with the Broad Wall of Scripture, because the piece is a good many feet in thickness (p. 48). But if the Broad Wall was so named for some other reason, this identification fails; and if the true reference of the name can be discovered, it may be a guide to the actual position of the Broad Wall.

The Hebrew words are *chomah rĕchâbâh*. *Râchâb*, with its cognate forms *răchăb*, *rechôb*, &c., convey chiefly the idea of roomy space. In Job xxxvi, 16, we have "Yea, he would have led thee away out of distress into a broad place, where there is no straitness." In Gen. xix, 2, the two angels say to Lot, "We will abide in the street all night," where "street" is the rendering of *rechob*. We have *rechob* again in Neh. viii, 1, "And all the people gathered themselves together as one man into the broad place that was before the Water Gate," as a congregation for Ezra to address. This open space appears to me to have been on the hill of Ophel, south of the Triple Gate. The broad place of Ezra x, 9, may have been the same. Thus the word seems to be used in much the same way as we use the word Square or Platz. We come still nearer to it in the Broad Sanctuary at Westminster.

Now, besides "the Broad" before the Water Gate, there was another Broad in Jerusalem, in which the excited people were assembled discussing the approach of Sennacherib, when Hezekiah went to them and spake comfortably to them (2 Chron. xxxii, 6). This broad place is not said to be before the Water Gate, but at the Gate of the City; and the circumstances favour the idea that it was at the Valley Gate (Jaffa Gate), or some gate of the north-western quarter, seeing that Sennacherib made his approach from the north-west.

The references in Nehemiah require that the Broad Wall should be in this quarter. May it not signify, therefore, the wall by the Broad?

Twin Sacred Mounts at Jerusalem.

In a paper on Kirjath Sepher, in the *Quarterly Statement* for October, 1888, speaking of the two Sipparas—at Abu Hubba and Agadé, on the two sides of a stream—I remarked, "I find reason to think that the duality was symbolical, and was important in the astro-religious system, the two sites standing for the two equinoxes." I said that we might compare with these twin temples or towers the mound of Birs Nimroud

and the Babil mound, in near proximity but on opposite sides of the Euphrates. I would add now, that it may be instructive to compare the summit of Moriah and the knoll of the traditional Calvary covered by the Church of the Holy Sepulchre.

These two mounts at Jerusalem were probably sacred before the Israelitish occupation, and we need not be surprised if some of the traditions which relate to them prove to have come down from heathen sources. The parallel with the sacred mounts of other nations is indicated by the following circumstances :—

The mount was made the site of a temple : on the mount at Borsippa the Temple of Nebo ; at Sippara the Temple of Shamas, the sun-god ; at Moriah (eventually) the Temple of Jehovah.

The temple often was over a well. Mariette describes the pyramid (which was an artificial mount) built of enormous stones *covering the well* as with a massive lid. In the Birs-Nimroud inscription, Nebuchadnezzar says that, when he finished building the Tower of the Seven Planets at Borsippa, which former kings had begun, he found that the water-springs beneath it had not been kept in order.[1] Under the Dome of the Rock at Jerusalem we know there is the sacred and mysterious well—the "well of souls."

The rock or mount was spoken of as a foundation stone of the universe. Nebo is called "the bond of the universe," and his temple at Borsippa was "the house of the seven bonds of heaven and earth." The sun-god of Sippara comes forth from the foundation of the sky.[2] In the temple enclosure of Bel-Merodach was a tower of eight stages, called the house of the foundation stone of heaven and earth. It is pointed out by Lewin ("Sketch of Jerusalem," 15), that the Temple of Solomon stood on the summit of a series of successive terraces, fashioned in imitation of the Assyrian style of architecture, and we know that in Mohammedan tradition the sacred rock of Moriah is "the foundation stone of the world." Compare also the Scripture expressions, "The mountain of the house," "Behold I lay in Zion a foundation stone," "Our Rock is not as their rock," "Upon this rock I will build my church" in place of the temple which occupies the rock at present.[3]

The rock at Borsippa was the symbol of the equinox, as I am led to think. The temple of Nebo was built upon the rock to set forth that the astro-religious system was built upon the equinox as its foundation and starting point. I have collected ample evidence of this, but it is not necessary here to elaborate it.

The system dates from the time when the equinoxes were astronomically connected with the constellations *Taurus* and *Scorpio*, which are of course half a circle apart in the zodiac, as the equinox dates are half a

[1] Mariette, "Mon. Upper Egypt," p. 73, Eng. trans. Gerald Massey, "Natural Genesis," ii, 192.

[2] Sayce, "Hibbert Lectures," 96, 115, 174.

[3] This is a new interpretation of the passage ; but I can substantiate it.

year apart in the calendar. The spring equinox was in the Bull, the autumn equinox in the Scorpion, and the spring equinox as the beginning of the year, and of the cycle, was the foundation. Of course, then, autumn and the Scorpion were opposite the foundation, and almost as important as the foundation itself. Accordingly, in the Accadian year (whence was derived the Assyrian) the month which corresponded to the Semitic Tasrit or Tisri, and our September was called "the month of the illustrious mound;"[1] and the sign Scorpio is said to face the foundation. In the Proceedings Soc. Bib. Arch., Feb. 5th, 1889, Mr. Brown has the following:—"The Akkadian name of the eighth month is connected with 'Foundation,' and Professor Sayce remarks, 'M. Ernest de Bunsen has shown that Scorpio was taken as the starting point of the primitive calendar ('Transactions,' iii, 163); but the name may mean 'Opposite to the Foundation" *vide* Sayce, 'The Babylonian Astronomy,' in 'Monthly Notices' of the Royal Astronomical Society, xi, 3, p. 117), *i.e.*, to the second month and the Bull, as (at one time) Leader of the Signs."

The mounts and temples were connected with oracles and writings. Nebo is called the divine scribe, the author of the oracle, the creator of the written tablet.[2] The royal library at Nineveh stood within the precincts of the Temple of Nineveh. At Sippara, in the temple of the sun-god Mr. Rassam has found thousands of written tablets, besides a great work on astronomy and astrology. In the temple on Mount Moriah were enshrined the ark of the covenant and the Books of the Law. There is even a tradition that these are hidden in the sacred "well of souls."

The mounts and the writings were more or less connected with traditions of the Deluge. Xisuthros, the Chaldean Noah, was the author of writings concerning the antediluvian world, which he buried at Sippara. The Tower of Babel was to have its head above the reach of any future deluge. A story is sometimes told at Jerusalem that the Mount Calvary was called Golgotha, the place of a skull, or the skull-hill, because the skull of Adam was washed up there by the Deluge.

The little mount covered by the Church of the Holy Sepulchre stands by Moriah as a twin sacred mount, not only in natural position, but as a nucleus of similar traditions. Tradition says that Adam is buried there and that Christ was to be buried there, so that the second Adam might be with the first. The twin mounts are diametrically opposed: Adam being buried at Golgotha, Mohammed rises from the Sakhrah into heaven —death and resurrection are symbolically connected with the two mounts. In the *Quarterly Statement*, October, 1888, Mr. Simpson gives us Herr Schick's careful drawings of the particular object which marks, in the Greek Church of the Holy Sepulchre, the Middle of the World, and refers

[1] Sayce, "Hibbert Lectures," 406.

[2] Sayce, 9, 114.

to the legend of Adam's burial there. That the Mohammedans should place Adam and the Middle of the World at Mecca, and not at Jerusalem, is only natural; for representative or symbolical mounts were adopted or reared in many places. The Greek navel of the world was at Delphi, for the like astronomical reason.

Now, if there is any ground for the parallel I have suggested, it may be worth inquiry, what bearing these facts have upon the question of the true site of Calvary. It is clear that the mount which the legends couple with Moriah is that over which the Church of the Holy Sepulchre stands, and not the one at the Grotto of Jeremiah. On the other hand, the immemorial sanctity of the site would hardly be a reason for making it a place for executions, unless to desecrate it, though it might very well be a reason for building temples or churches over it.

GEORGE ST. CLAIR.

ERRATA.

1889. Page 38, line 7. *Omit* as.
„ 41, „ 7. *After* as *read* if.
„ 46, „ 18. *Omit* present.
„ 46, „ 23. *For* in *read* into.
„ 46, „ 24. *Before* were *read* both.
„ 46, „ 28. *Omit* marked.
„ 50, „ 18. *Before* nine *read* of.